

JYU DISSERTATIONS 589

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Milla Saarinen

# Uncovering the Vulnerabilities of Female Student-Athletes in the Career Construction Framework

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UNIVERSITY OF JYVÄSKYLÄ  
FACULTY OF EDUCATION AND  
PSYCHOLOGY

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**Milla Saarinen**

# **Uncovering the Vulnerabilities of Female Student-Athletes in the Career Construction Framework**

Esitetään Jyväskylän yliopiston kasvatustieteiden ja psykologian tiedekunnan suostumuksella julkisesti tarkastettavaksi Agora-rakennuksen auditoriossa 3 tammikuun 13. päivänä 2023 kello 12.

Academic dissertation to be publicly discussed, by permission of the Faculty of Education and Psychology of the University of Jyväskylä, in building Agora, auditorium 3, on January 13, 2023, at 12 o'clock.



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## ABSTRACT

Saarinen, Milla

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The purpose of this doctoral dissertation is to deconstruct the dual career environment success factor model (Henriksen et al., 2020) from a gender perspective and subsequently integrate that perspective into current practices to ensure that women athletes are more effectively supported by coaches and support systems during their dual careers. In Study 1, youth elite cross-country ski coaches ( $n = 10$ ) were interviewed about their discursive practices in relation to the promotion of education and gender. In Study 2, student-athletes ( $n = 17$ ) were interviewed about their experiences of coach-created motivational climates and how those climates shaped their dual career experiences. Study 3 examined student-athletes' ( $n = 248$ ) motivational orientations in both sport and school and the role of coaching styles and gender in these motivational orientations. Study 4 examined student-athletes' ( $n = 391$ ) attributional profiles and their role in predicting student-athletes' dual career success across school years. The results show that coaches constructed the idea of sport as a male space: drawing upon multiple discourses, the coaches constructed female athletes as "less than" male athletes; there is thus a need to focus on holistic development. The results further showed that an affective coaching style, which was most often demonstrated by female coaches, predicted student-athletes' mastery-oriented motivation in school and male student-athletes' mastery-oriented motivation in sport. Similarly, female athletes were found to be more mastery-oriented toward athletic and academic goals than their male counterparts. Finally, student-athletes' responsible attributional profiles were found to predict their school achievement and dual career continuation at the end of the third year of sport upper secondary school. While gender was not statistically significantly associated with attributional profiles, female athletes were overrepresented and male athletes underrepresented in the "responsible" group. The results can be used to facilitate young female athletes' development and success in dual career development environments, through the enhancement of coaching practices and support systems that account for the additional pressure and "superwoman" expectations that young female athletes often encounter.

*Keywords:* coaching, feminist poststructuralism, gender, dual career, motivation, student-athlete

## TIIVISTELMÄ (ABSTRACT IN FINNISH)

Saarinen, Milla

Naisurheilijoiden haavoittuvuus ja siihen vaikuttavat tekijät kaksoisuran rakentumisen viitekehyksessä

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Tämän väitöskirjatutkimuksen tavoitteena oli uudelleenrakentaa Kaksoisuraympäristöjen menestystekijät-malli (DC-ESF) (Henriksen ym., 2020) sukupuolen näkökulmasta, sekä integroida sukupuolinäkökulma tähänhetkisiin kaksoisurakäytäntöihin jotta valmentajat ja tukijärjestelmät voivat jatkossa tukea naisurheilijoita tehokkaammin. Osatutkimuksessa 1 haastateltiin maastohiihdon nuorten huippuvalmentajia (n = 10) siitä, miten valmentajien käsitykset urheilijoiden kokonaisvaltaisesta kehityksestä linkittyvät sukupuolesta kerrottuihin sosiokulttuurisiin diskursseihin. Osatutkimuksessa 2 haastateltiin opiskelija-urheilijoita (n = 17) heidän kaksoisurakokemuksistaan. Osatutkimuksessa 3 tarkasteltiin valmennustyylien yhteyttä urheilu- ja koulumotivaatioon ja sukupuolieroja näissä yhteyksissä. Aineisto kerättiin opiskelija-urheilijoilta (n = 248) motivaatio-orientaatiota ja valmennustyyliä koskevilla kyselylomakkeilla sekä lukion alussa että sen lopussa. Osatutkimuksessa 4 tarkasteltiin attribuutiotyypien yhteyttä kaksoisuramenestykseen. Aineisto kerättiin opiskelija-urheilijoilta (n = 391) kyselylomakkein lukion alussa, ensimmäisen vuoden lopussa, sekä kolmannen vuoden lopussa. Tulokset osoittivat, että valmentajat monista eri diskursseista ammentaen rakensivat ajatusta naisurheilijoista miehiä ”vähäisempinä” ja epätäydellisinä, jonka takia nähtiin tärkeänä että naisten kohdalla keskitytään kokonaisvaltaiseen kehitykseen. Tulokset lisäksi osoittivat, että lämmin valmennustyyli ennusti opiskelija-urheilijoiden tehtäväsuuntautunutta koulumotivaatiota sekä miesurheilijoiden tehtäväsuuntautunutta urheilumotivaatiota. Lisäksi urheilijoiden vastuullisen ja oppimiseen keskittyvän motivaatiotyypin havaittiin olevan yhteydessä kaksoisuramenestykseen: vastuullinen motivaatiotyyli ennusti parempaa koulusuoriutumista sekä urheilun jatkamista lukion kolmannen vuoden lopussa. Naiset olivat lisäksi yliedustettuja ja miehet aliedustettuja vastuullisen motivaatiotyypin ryhmässä. Tutkimustuloksia voidaan hyödyntää pyrittäessä tukemaan naisurheilijoiden kehitystä ja menestystä kaksoisuraympäristöissä siten, että niissä otetaan aiempaa paremmin huomioon naisurheilijoiden kokemat odotukset ”supernaiseudesta”.

*Avainsanat:* valmennus, kaksoisura, motivaatio, sukupuoli, feministinen poststrukturalismi, opiskelija-urheilija

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Milla Saarinen



## LIST OF ORIGINAL PUBLICATIONS

I. Saarinen, M., Ryba, T. V., Kavoura, A., & Aunola, K. (2023). "Women easily feel that they have lost a year if they don't ski faster": Finnish ski coaches' discursive constructions of gendered dual career pathways. *Psychology of Sport and Exercise*, 64, Article 102322.

II. Saarinen, M., Ryba, T. V., Ronkainen, N. J., Rintala, H., & Aunola, K. (2020). "I was excited to train, so I didn't have problems with the coach": Dual career athletes' experiences of (dis) empowering motivational climates. *Sport in Society*, 23(4), 629-644.

III. Saarinen, M., Tolvanen, A., Aunola, K., & Ryba, T. V. (2022). The role of gender and coaching styles in adolescent student-athletes' motivational orientations in sport and school. *Current Psychology*. <https://doi.org/10.1007/s12144-022-03352-z>

IV. Saarinen, M., Bertram, R., Aunola, K., Viitanen, J., & Ryba, T.V. (2022). Student-athletes' causal attributions for sport and school achievement in relation to sport dropout and Grade Point Average. *Journal of Sport and Exercise Psychology*. <https://doi.org/10.1123/jsep.2022-0115>

Taking into account the comments and instructions given by the co-authors, the author of the present dissertation wrote the original research plan, conducted the analyses in collaboration with the co-authors, and wrote the reports of the four publications.

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ORIGINAL PAPERS

# 1 INTRODUCTION

For men it seems to be easier to think that they just want to be as good athletes as possible whereas women may, which is natural of course, be more worried whether they will ski faster the next season than the previous one. Women may easily get the feeling that in this case they have lost a year, and that they should have done something else such as study or go to work as well. Waldemar, (Male, junior national team coach)

In recent years, there has been an increasing cultural expectation in Nordic countries that athletes should succeed simultaneously in sport and school (Ryba et al., 2016). This combination of sport and education, which is known as a dual career (DC) pathway, aims to ensure that young athletes receive education and/or vocational training alongside their athletic career, thus safeguarding their long-term employability and adaptation to life after retirement from sport (European Commission, 2012). Earlier research on DCs in sport and education has demonstrated that DCs have multiple benefits for athletes, such as broader identity development, balanced lifestyles, enhanced athletic performance, and better life satisfaction; for a review, see Stambulova and Wylleman (2019). While current European policy documents concerning DCs highlight the importance of equality and anti-discrimination in DC practices (European Commission, 2012, 2014), not all athletes have equal access to construct a DC pathway: dominant but generally unnoticed discourses of gender ingrained in DC policies and practices influence athletes' motivation, decision making, wellbeing practices, and career aspirations (Kavoura et al., 2018; Ryba et al., 2021). Similarly, while coaches have been recognized as the most central socializing agents for young athletes (Knight et al., 2018; N. Smith et al., 2016), little is currently known about how coaches' dominant ideas about gender may influence the ways athletes construct their DC pathways. This is a critical void in the literature because it has been found that while DC discourses are often feminized (Ronkainen et al., 2020; Ryba, 2018; Ryba et al., 2021; Viljaranta et al., 2022), fewer and fewer women are applying to DC programs in Finland (Finnish National Agency for Education, 2021), which suggests that the professional athletic career may no longer be an attractive career pathway for young women (Kavoura & Ryba et al., 2020; Skrubbeltrang, 2019).

Indeed, there is a need to further unpack female athletes' career development to understand why they often seem to feel less competent than male athletes in sport (Krane et al., 2004; Ronkainen et al., 2016), are less likely to aim for a professional career in sport (e.g., Kavoura & Ryba, 2020), and are at greater risk of dropping out of sport entirely than males (Skrubbeltrang, 2019). Given the extensive literature on motivation in sport and its centrality on athletes' experiences and continued participation in sport, this thesis pays particular attention to motivation and the motivational context in dual career development environments (DCDEs) (Morris et al., 2021) and examines them from a gendered perspective.

Therefore, the purpose of this dissertation was to deconstruct the dual career environment success factor model (DC-ESF) (Henriksen et al., 2020) from a gendered perspective by drawing on the empirical findings of four empirical studies and integrating a gendered perspective into current DC practices to ensure that women athletes can be more effectively supported by coaches and support systems. To achieve this research objective and by drawing on the DC-ESF model, the dissertation aimed to examine the following research questions: (1) How do coaches construct the dominant understanding of sport as a male space in their own coaching practices and attitudes toward female athletes' DCs? (2) How are coaches' coaching styles related to the gendering of athletes' DC pathways? (3) Is young female athletes' motivation to pursue a DC different from that of males, and is their motivation related to their achievement in the two DC areas of sport and school and DC continuation? The dissertation incorporates four empirical studies that were undertaken to address the research questions. Study 1 examined how Finnish elite youth cross-country ski coaches' understanding of athletes' holistic development was interlinked with sociocultural discourses of gender. Drawing on Duda's (2013) conceptualization of empowering coaching, Study 2 examined Finnish student-athletes' experiences with coach-created motivational climates in sport upper secondary schools and the implications of these climates for their DC experiences. Study 3 investigated gender differences in student-athletes' motivational orientations in sport and school and the role of coaching styles in these orientations; the role of athletes' gender, coaches' gender, and their interaction in coaching styles was also examined. Finally, in Study 4, student-athletes' attributional profiles and their role in sport and school achievement and DC continuation, along with gender differences in these profiles and associations, were studied using quantitative research methods. This dissertation extends earlier research on athlete career development by adopting a critical, gendered lens and thus addressing a clear omission in the existing DC literature. The research provides another novel contribution by suggesting possible changes to existing coaching practices and support systems that can enhance the DC experience of female athletes (Stambulova & Ryba, 2014).

## 1.1 European dual career framework

Traditionally, studies concerning athletes' DCs have focused on examining individual athletes and the competencies and skills they need to construct a successful DC pathway; for a review, see Stambulova and Wylleman (2019). More recent scholarship on athlete development in the European context, however, highlights the importance of extending the understanding of that development from the individual level to the environmental level and suggests that it should be studied by adopting a holistic ecological approach (Henriksen et al., 2020; Stambulova & Wylleman, 2019). It has been suggested that this approach is crucial for broadening the current understanding of the social factors that shape athletes' developmental trajectories (Henriksen et al., 2020). Recently, it was also used to understand how DCDEs across Europe operate (Morris et al., 2021; see also Nikander et al., 2020). A DCDE is a purposefully developed environment that supports athletes' combination of competitive sports with education and/or work (Morris et al., 2021). Based on these ideas, Henriksen and colleagues (2010) first developed the notion of the environment success factor (ESF) and later the DC-ESF model (Henriksen et al., 2020). In this reformulation, the organizational culture consisting of artifacts (observable cultural forms to be deciphered like clothing, customs, and stories), espoused values (the principles, norms, goals, and standards that the organization claims represent them and displays to the world), and basic assumptions (core beliefs, whether explicit or tacit) is replaced by a DC philosophy. Here, the DC philosophy reflects the integrated set of key ideas and values describing how DC support should be organized to increase the effectiveness of DCDEs. The working model (Figure 1) first illustrates the preconditions, including financial and human resources (e.g., coaches, experts) and facilities. Second, the model illustrates how the daily routines or processes that are designed in accordance with the DC support team's philosophy affect student-athletes' development as athletes, students, and human beings, thus impacting their DC competencies. In the DC-ESF model, the philosophy of the DC support team describes the integrated set of key ideas and values about how DC support should be organized to provide conditions that are as favorable as possible for student-athletes' development. Hence, the DCDE's effectiveness – as reflected in the student-athletes' academic and athletic achievements, wellbeing, and satisfaction – is ensured (Henriksen et al., 2010, 2020).

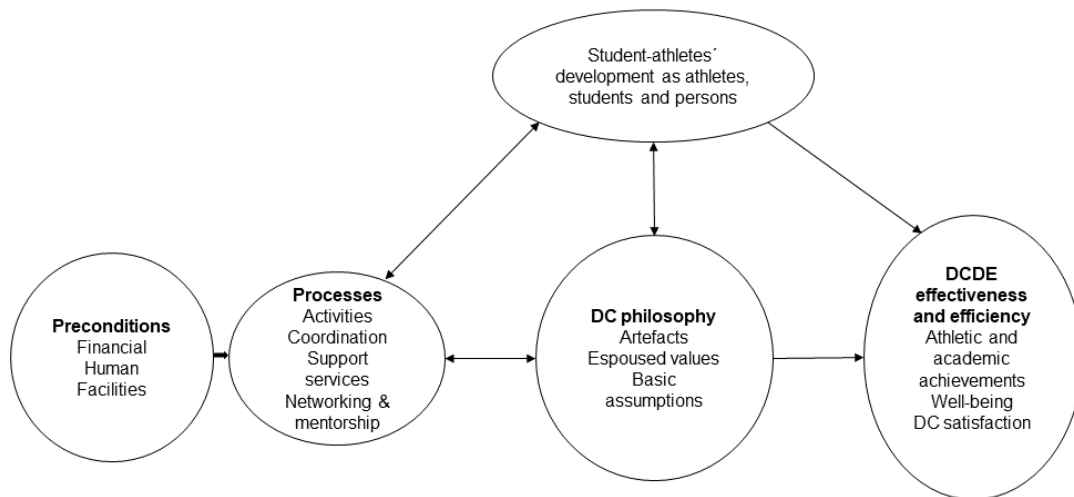


FIGURE 1 The DC-ESF working model (Henriksen et al., 2020)

The DC-ESF model has been widely accepted in sport and exercise psychology scholarship, and the number of studies exploring DCDEs using the model continues to increase (for a review, see Feddersen et al. (2021), Linnér et al. (2021), and Nikander et al. (2020)). However, the model still has, from a critical perspective, one major limitation: it continues to operate under the pretense of the “universal athlete”: white, male, and living in a relatively wealthy country that has well-organized sport systems (exceptions are Book, 2022, Book et al., in press). Indeed, the cultural praxis of athletes’ career paradigm (Stambulova & Ryba, 2014) highlights the need to adopt a contextualized approach to diversify the current, taken-for-granted understanding of athletes’ careers and to adequately represent women athletes, who have typically been marginalized in career development research. Therefore, it is important to examine career pathways and development through the critical, cultural, contextual, and gendered lenses that shape athletes’ developmental trajectories to consider, less uniformly and with greater sensitivity, the cultural factors underpinning their development.

Similarly, earlier literature has most often used the DC-ESF model to study success factors and the effectiveness of DCDEs in one particular organization at a specific time point; for a review, see Feddersen et al. (2021). For the most part, this type of research has a centralized “culture” as a critical variable that exists within the confines of the environment and is to be discovered and changed to engineer desirable outcomes and improvements (e.g., Henriksen et al., 2014). However, other organizational scholars have problematized this functional account of culture on several grounds. For instance, and relevant to the present research, whether a specific sport organization can or even should be studied separately from the wider discourses or trends that circulate in the sporting world (Gilmore, 2013). From these contrasting perspectives, the sport organization or team is always part of a greater, complex environment that must be considered because it exists alongside and is constantly shaping the internal



goings-on (Gilmore, 2013). This can include structures of economy and society that can exert a powerful influence on the scope and range of activities, values, and behaviors at all levels of the sport organization, thereby shaping, vitalizing, and nourishing its cultures and institutional practices (Gilmore, 2013). This conceptualization of organizational culture as an open rather than closed system is much more in line with contemporary system thinking concerning culture (Schein, 1990) and foundational work on culture (Hofstede, 1985) that stresses the importance of social context and national culture on the manifestations of culture within organizations.

Consequently, it is essential to closely consider the wider context and culture in any deconstruction of the DC-ESF model and DCDE. For example, in the Finnish cultural context, adolescent athletes often combine their athletic pursuits with education so as not to restrict their future study opportunities and life options (Ryba et al., 2016). While student-athletes often consider education important, it has been shown that male athletes and those who perform at a high level in particular tend to prioritize sport (Christensen & Sorensen, 2009; Ryba et al., 2017, 2021). Because athletes typically retire by ages 30 to 35, elite sporting careers are usually relatively short and require an intense emotional and physical investment in developing sport-specific skills. In Finland, youth athletes often start competing when they are seven or eight years old and achieve elite status after 10 years of experience (Blomqvist et al., 2015). In most sports, the most critical transition is the one from junior to senior level, which takes place when athletes are around 16 to 18 years old (Ryba et al., 2016). This transition has been described as highly stressful due to the increased training and competition demands, and only 10%–30% of athletes successfully complete that transition (Stambulova et al., 2009). Many also experience changes in their psychosocial environment if they move away from home to student housing where coaches – rather than parents – become their most important socializing agents (Knight et al., 2018; Wylleman et al., 2013).

Around the same time as student-athletes begin their critical transition into senior sport, they also move from comprehensive school to upper secondary education. In the Finnish educational system, after completing compulsory education (comprehensive school), students have to make a decision concerning their secondary education, which comprises either upper secondary school (an academic track preparing students to apply for university) or vocational school (professional preparation for transitioning to the labor market or continuing in polytechnic schools, also referred to as universities of applied sciences). At the time of the study, secondary education was voluntary in Finland, but since 2021 it has been compulsory for everyone under 18 (Finnish National Agency for Education, 2021). Talented or advanced young athletes most often choose to pursue a secondary education in the national talent development program, structurally enabling the construction of a DC pathway. Upper secondary sport schools (*urheilulukiot* in Finnish) collaborate with sport academies and athletic clubs to arrange daily training for athletes, offer the possibility of extending the three-year academic curriculum to 3.5 or 4 years, give study credits for sport, and

assist with DC planning. Admission to upper secondary sport schools is extremely competitive; in addition to good school grades, students need to show high potential in their sport to be accepted. Finland currently has 15 upper secondary sport schools in Finland, as classified by the Ministry of Education and Culture, seven of which participated in the Finnish Longitudinal Dual Career Study (Ryba et al., 2016). A similar system to facilitate the combination of vocational education and sport has existed for around 30 years.

While gender does not seem to factor into the structuring of Finnish education on the surface, there are certain tensions in the ways in which gender is explicitly and implicitly considered in relation to DCs. On the one hand, current European policy documents concerning athletes' DCs have increasingly stressed the importance of gender equality and anti-discrimination in DC practices (European Commission, 2012, 2014). Using Schein's organizational culture language, which has been adopted by Henriksen in previous DC work (e.g., Henriksen et al., 2010, 2020), this formal recognition of gender equality might be viewed as referring to "espoused values" and suggests that gender is important within the broader educational context and therefore in sport organizations. However, recent research conducted in the Nordic countries clearly shows that, in reality, DC practices continue to be organized along the gender binary (Ryba et al. 2021). Therefore, while espoused values indicate an awareness of and attention to gender equality, the deeper basic assumptions underpinning sport culture and DCDEs are that sport is for men and that male bodies and sports practiced by subjectivities marked by maleness are privileged (Ryba, 2022; Ryba et al., 2021). More specifically, Ryba and colleagues (2021) found that gender functioned in the narrative construction of DC styles and that these styles further impacted the (dis)continuation of DC pathways with differential outcomes for young female and young male athletes. The authors noted that while male athletes were more likely to invest in a singular professional athletic career theme, female athletes were more apt to balance the educational and athletic themes in their life scripts. Other authors have also found that even though female and male athletes' motivation to pursue sports is often similar (Aunola et al., 2018; Viljaranta et al., 2022), female athletes are more likely than males to value school and invest in educational and DC goals and identities (Ekengren et al., 2019; Moazami-Goodarzi et al., 2020; Viljaranta et al., 2022). Several sport scholars have also argued that female athletes are less likely than males to pursue a professional career in sport (Kavoura & Ryba, 2020) and are at higher risk of withdrawing prematurely from sport (Skrubbeltrang, 2019). In Finland, previous studies have shown that men often have the cultural privilege of being more relaxed about their career aspirations and focusing solely on their athletic careers, whereas women often experience societal and cultural pressure to excel in multiple roles (Kavoura & Ryba, 2020; Ronkainen et al, 2021; Ryba et al., 2021). Indeed, in spite of the evidence indicating the gendered nature of DC organization and structuring in favor of males, recent scholarship has pointed out that we are witnessing a feminization of DC discourses; that is, a greater number of women are enrolling in DCs compared to men (Ronkainen et

al., 2021; Ryba, 2018; Ryba et al., 2021). However, it should be noted that DC discourses may be particularly important for young women due to the limited opportunities they have to develop professional athletic careers, which means that they need to invest more into their education (Ronkainen et al., 2021; Ryba et al., 2021).

In light of these recent findings showing the interplay of complex social formations and unnoticed but deeply embedded gendered discourses, Henriksen et al.'s (2010, 2020) traditional approach to organizational culture has become increasingly challenged. Arguably, it may even be unsuitable to provide deeper cultural analysis in the DCDE context. Problematically, the approach adopted by Henriksen and colleagues objectifies culture as something that is discoverable as a "thing" that is contained in a location within the boundaries of a geographical and physical location and/or attached to a particular group. It emphasizes the obviously shared forms of culture (e.g., common espoused values and principles) to the point of assumed uniformity (McDougall et al., 2020). In recent work, though, McDougall and colleagues (2020) have critiqued Henriksen's approach, asserting that it is not oriented toward seeking out or detecting discontinuities in the environment, such as conflicting views or hidden discourses. Instead, McDougall and colleagues argue that the approach tends to reinforce and replicate accepted performance narratives and marginalize groups of people in the process and that there is consequently a need to locate organizational cultural analysis within and alongside consideration of broader sociological and political issues and processes like gender discourses and struggles for equality, the context of the present study. The perspective on culture favored by Henriksen and colleagues (i.e., attending to artifacts, espoused values, and basic assumptions) was therefore supplemented by the incorporation of a more subjectivist and interpretivist approach, which is capable of attending to differences, inequity, and unnoticed discourses (McDougall et al., 2020). In this subjectivist view, researchers make sense of complex cultural contexts (Alvesson, 2002), and the ways in which culture is made and remade through social interaction provide the contextual richness of social life (Smircich, 1983). Everything is cultural, laden with meaning, and requires interpretation (Geertz, 1973), including practices (like coaching ones) and surrounding discourses (including gender discourses). Like the air we breathe, culture is all around us and has often an unnoticed influence on everything, such as what people pay attention to, the language they use, and how they behave (Hofstede, 1985).

In adopting these perspectives on culture, it is thus critical to take a closer look at DC preconditions, which show, for example, how many of the structural and financial conditions in the Finnish sport system are gendered. Finland is often cited as a relatively egalitarian country in which extensive gender equality work has been carried out during the past decade in both work and educational settings, including sport (Brunila & Ylöstalo, 2015). Yet, structural inequalities in the Finnish sporting system still limit young women's opportunities to develop professional careers in sport. A majority of the DCDEs facilitating athletes' combination of vocation and elite sport, like Player Union and Defence Force

Programs, are directed toward men (Morris et al., 2021; Nikander et al., 2021b), and, despite the recent growth of women's sport, only 1.6% of Finland's professional athletes in 2017 were women (Lämsä, 2018). Female athletes also remain underrepresented in receiving financial support from the Ministry of Education and Culture and from the Finnish Olympic Committee (Turpeinen et al., 2012). Moreover, fewer than a quarter of the professional coaches in Finland are women (Finnish Coaches Association, 2022). Notably, gender inequality questions in Finland are often overshadowed by the notion that gender equality has already been achieved, which may actually hinder the opportunities that young women have to demand equal treatment (Kavoura et al., 2018; Ronkainen et al., 2016).

As already stated, coaches have typically been positioned as preconditions in the DC-ESF model (Henriksen et al., 2010, 2020). However, earlier studies have shown that they play a central role in contributing to the effectiveness of a DCDE not only as preconditions but also at multiple levels, such as influencing DC processes in the ways they coach their athletes and in the specific DC philosophy; that is, how things are done in a given DCDE. For example, Book et al. (in press) argue in their research on underserved American DCDEs that coaches are considered cultural leaders who bear primary responsibility for establishing the cultural paradigm and thus success in a given environment. Similarly, Nikander et al. (2020) point out that as coaches are often the closest adults to young student-athletes, their approaches toward athletes' DCs play a pivotal role in shaping the organizational culture and DC processes, such as the ways they ultimately coach their athletes (see also Bjørndal & Gjesdal, 2020). When examining broader DC processes closely, coaching scholars have argued that coaches' perspectives and practices are indeed shaped by the discourses on gender and gender equality promoted by major sport organizations and coach education programs (De Haan & Knoppers, 2020; Norman, 2016b; Norman & Simpson, 2022). Specifically, Norman (2016a) outlines that while coaches face complex gender issues on a daily basis, they often downplay the importance of these issues in their work and therefore fail to incorporate practices that promote gender equality. Moreover, discourses that privilege men's behavior and knowledge and position them as better in the gendered sport hierarchy may be taken by coaches as objective truths that inform their thinking and coaching practices (Norman, 2016a). In their study, De Haan and Knoppers (2020) examined the gender discourses that elite rowing coaches drew on to shape their athletes and found that coaches employed discourses that regard female athletes as more sensible, less competitive, and less capable of high-level performance than male athletes. Similarly, Edwards (2007) examined Japanese coaches' discursive practices in relation to gender and found that female athletes were continually compared to male athletes, who were constructed as the norm; that is, as embodying the desirable practices of sport. Indeed, several scholars have indicated that coaching women has often been framed as non-normative and problematic, requiring coaches to adapt their coaching style to their female athletes (de Haan & Knoppers, 2020; LaVoi et al., 2007). It has also been suggested that the construction of the "ideal" athlete

through masculinized discourses might be linked to structural inequalities such as the limited opportunities for women to develop professional athletic careers and the expectations that female athletes will invest more in their education (Ronkainen et al., 2021; Ryba et al., 2021). Similarly, the notion of how DC discourses may be feminine can have implications for male athletes regarding the choices they make in their DCs (Ryba, 2022). Since coaching discourses and practices contribute to how athletes make meaning of their careers, a feminist poststructuralist theory – outlined in the next section of the thesis – is useful in explicating the gendered effects of discursive coaching practices.

Finally, it is important to note that the discourses and gender inequalities described above come into contact with and weave through other prevalent, if shifting, beliefs and ideas in sport. Traditionally, sport coaching has been viewed as a profession that focuses on athlete learning and performance improvement (Jones et al., 2016). However, more contemporary ideas on sport coaching suggest that coaches who work with athletes under current DC policies should aim to promote athletes' education and lifelong development not only in sports but also in other developmental spheres, including education (Bjørndal & Gjesdal, 2020; European Commission, 2012; Wylleman et al., 2013). Despite these policy recommendations, little is known about how coaches address the holistic perspective on athlete development in their actual coaching practices. Indeed, previous research has revealed tensions between coaches' reported views on athletes' holistic development and their real-world practices. For example, earlier studies have observed that even though youth coaches may often claim to be supportive of their athletes' education, they cannot recall specific examples of that support in their practice (Ronkainen et al., 2018), which suggests that coaches are often unable and perhaps unwilling to transform their beliefs into action. Earlier literature has also found that elite-level coaches may be especially unsupportive of athletes' academic goals because they take athletes' focus away from their sporting endeavors (Ronkainen et al., 2018; Rothwell et al., 2020). Since performance discourses celebrating a single-minded focus on sport are often privileged in coach education and knowledge formation, it is important to reveal and challenge the invisible (gender) discourses that shape how coaches construct their coaching philosophies and practices and marginalize women in the process (Carless & Douglass, 2013; Denison & Avner, 2011).

To help position this thesis and the empirical studies that it incorporates, this research draws on the following key theories and ideas to understand and study coaching: feminist poststructuralist theory (Butler, 1990, 1993; McGannon & Busanich, 2010; Weedon, 1997), empowering coaching (Duda, 2013), and coaching styles (Amorose & Anderson-Butcher, 2015; Bartholomew et al., 2010; N. Smith et al., 2016). Similarly, the key theories when studying motivation are motivational orientations (Anderman, 2020; Urdan & Kaplan, 2020) and causal attributions (Weiner, 2012, 2018).

## 1.2 Feminist poststructuralist perspective on coaching

To understand the culturally situated nature of coaching practices, this thesis employs a feminist poststructuralist framework (Butler, 1990, 1993; Foucault, 1972, 1978; Markula, 2018; Weedon, 1997) on coaching that emphasizes the role of language and discourse in constructing ways of being, doing, and feeling in a given sociocultural context (see section 2.1 for a comprehensive explanation of the philosophical underpinnings guiding the thesis). Drawing on this framework, language is understood as constructing knowledge and “reality” through discursive practices and formations (Markula, 2018; Weedon, 1997). As the term *discourse* is used frequently in this thesis, it is worth briefly specifying its intended meaning: it refers to certain sets of knowledge and social practices that establish what are accepted as norms and reality in a given sociocultural context. Cultural discourses give rise to power relations that are perpetuated through everyday practices and privilege certain identities and experiences and marginalizing others (Kavoura et al., 2015; Weedon, 1997). As some discourses are more influential than others, they have more power to determine what is accepted as natural, good, true, or “scientific” (Foucault, 1972). Feminist poststructuralist perspectives highlight that many discourses are also gendered, which may have concrete implications for shaping (and often constraining) people’s behavioral practices in accordance with gender norms (Markula, 2018; McGannon & Busanich, 2010; Weedon, 1997). Indeed, as Butler (1990, 1993) argued a generation ago, the concepts of sex and gender are not only constructed through language and discourse but also by repeatedly performing them through certain ways of talking, walking, acting, and dressing. Despite the increasing acceptance of the fluidity of gender, repeated performances of women/feminine and men/masculine lead to the taken-for-granted assumptions that these concepts are innate and stable (Butler, 1990).

Feminist and cultural sport psychology researchers have used feminist poststructuralist theory to explain how discourses on sex and gender influence sport practices and experiences and the ways that athletes view their bodies and themselves (e.g., Busanich & McGannon, 2010; Kavoura et al., 2015, 2018; Krane, 2001; McGannon & Spence, 2012). For example, scholars have argued that dominant discourses on gender are deeply ingrained in sporting practices and cultures and that they create gender hierarchies and inequalities (de Haan & Knoppers, 2020; Edwards, 2007; Kavoura & Ryba, 2020; Krane, 2001; Krane et al., 2004). Experiences, practices, and identities associated with masculinity are often more valued, while feminine and LGBTIQ+ identities and experiences are marginalized (Kavoura et al., 2018). The assumed characteristics of the “ideal” athlete (competitiveness, toughness, aggressiveness, and endurance) remain associated with maleness and thus make male athletes the desired norm (Francis et al., 2017). Other attributes (sensitivity, modesty, warmth, and cooperation) are attributed to females and are often considered incompatible with elite sports, which positions female athletes as inferior to their male counterparts (Felton &

Jowett, 2013; Grahn, 2014; Krane, 2001; LaVoi et al., 2007). Importantly, such discourses on gender and sex are repeatedly reinforced and reproduced by coach education programs, sport institutions, and coaching practices, resulting in unquestioned assumptions and beliefs that can be deeply resistant to change (Grahn, 2014; LaVoi et al., 2007; Norman, 2016a).

### 1.3 Empowering coaching

It can be assumed that one critical factor shaping student-athletes' successful DC construction and thus the overall effectiveness of the DC environment is how well or poorly that environment supports student-athletes' motivation; that is, the processes that initiate, maintain, and guide goal-oriented behaviors (Anderman, 2020; Urdañ & Kaplan, 2020) toward both sport and school. This is clear because motivation has been shown to play a pivotal role in persistence and task engagement in both sport (Pelletier et al., 2001) and school (Kuh et al., 2008), while a lack of motivation may increase the risk of dropping out of sport (Jõesaar et al., 2011) and school (Vallerand et al., 1997; Wigfield & Cambria, 2010). However, while earlier research has shown that coaches are the most important motivational agents for young athletes in the sporting domain (e.g., Amorose & Anderson-Butcher, 2015; Knight et al., 2018; N. Smith et al., 2016), it remains less clear whether coaches play a significant role in athletes' school motivation and whether any such role is gendered. Examining motivation and the context for motivation is therefore timely and important because in the Finnish sport upper secondary schools where the thesis was carried out, most coaches are technically members of the school staff and are expected to support their athletes' academic performance (see also Bjørndal & Ronglan, 2018). Practically speaking, coaches often have little involvement in their athletes' education, with most of that responsibility falling on student counsellors. Moreover, earlier studies support the idea that the domains of sports and academics are interwoven in the DC context: for example, Into and colleagues (2020) recently showed that student-athletes' perceptions of performance-oriented and controlling coaching climates predicted athletes' symptoms of burnout, not only in sports but also in school. Similarly, recent studies have suggested that the problems young student-athletes face in their DC pathways are gendered (Viljaranta et al., 2022).

One social-cognitive framework that is well suited to examining and understanding coaches' role in athletes' motivation toward DCs is Duda's (2013) conceptualization of empowering and disempowering motivational climates. This framework integrates the major social environmental dimensions from achievement goal theory (AGT; Ames, 1992; Anderman, 2020; Urdañ & Kaplan, 2020) and self-determination theory (SDT; Deci & Ryan, 1985; Ryan & Deci, 2002; Urdañ & Kaplan, 2020) and suggests that a coach-created motivational climate can be more or less empowering. According to AGT, the term "motivational climate" refers to the psychological environment in sport concerning what the coach says, what the coach does, and how the coach structures the environment

in competitions and training (Duda, 2013). Another central assumption of AGT is that the motivational climate shapes individuals' interpretation of and responses to achievement-related activities such as sport by contributing to the use of mastery- and/or performance-oriented criteria to judge competence. Adopting a mastery-oriented criterion of competence means that a person emphasizes effort, skill development, and personal mastery. A mastery-oriented criterion of competence is fostered in a motivational climate where coaches value trying hard, developing skills, and cooperative learning (Anderman, 2020; Newton et al., 2000; Urda & Kaplan, 2020). Conversely, a performance-oriented conception of competence means that an individual values winning and outperforming others. This conception of competence is facilitated in a performance-oriented motivational climate where coaches punish athletes for making mistakes, provides differential treatment based on their athletes' ability level, and encourage intrateam rivalry (Anderman, 2020; Newton et al., 2000).

SDT has identified additional coach behaviors with motivational relevance. A central assumption of SDT is the degree to which the social psychological environment supports or hinders the fulfilment of the three basic psychological needs of competence, autonomy, and relatedness. The achievement of greater basic psychological need satisfaction is associated with more autonomous striving and more adaptive and healthful engagement (i.e., participating in an activity because one enjoys it for its own sake and/or personally values the benefits of the activity), which are conducive to sustained behavior (Ryan & Deci, 2002; Urda & Kaplan, 2020). Conversely, diminished or actively thwarted autonomy, competence, and relatedness lead to more controlled reasons for engagement (e.g., engaging in an activity for extrinsic rewards or from feelings of guilt and pressure) and compromised wellbeing for participants (Bartholomew et al., 2011; Ryan & Deci, 2000; Urda & Kaplan, 2020). In an autonomy-supportive sporting environment, coaches recognize athletes' preferences, acknowledge their feelings, and provide rationales when athletes are asked to do something (Mageau & Vallerand, 2003). A controlling coaching climate, by contrast, is characterized by coaches behaving in pressuring, coercive, and intimidating ways toward their athletes (Amorose & Anderson-Butcher, 2015; Bartholomew et al., 2010, 2011). Drawing on SDT, the third aspect of the environment that is particularly relevant to the psychological need for satisfaction in terms of relatedness is the level and quality of social support. In a socially supportive environment, every athlete feels cared for and is valued as both an athlete and a person (Mageau & Vallerand, 2003; Reinboth et al., 2004).

According to Duda's (2013) conceptualization, an empowering coaching climate is characterized by mastery-oriented, autonomy-supportive, and socially supportive features and will satisfy athletes' basic psychological needs, thus promoting their overall health and quality of engagement in sport. Indeed, earlier studies support this assumption by showing how empowering climate dimensions are positively associated with athletes' enjoyment (e.g., Cheon et al., 2015; Jaakkola et al., 2016) and global self-worth (e.g., O'Rourke et al., 2014; Quisted and Duda, 2011), while they are negatively correlated with athlete



burnout (Balaguer et al., 2012) and physical ill health (Reinboth et al., 2004). Similarly, the overarching empowering climate dimension is a positive predictor of athletes' self-efficacy (Zourbanos et al., 2016) and positively correlated with their autonomous motivation in and enjoyment of sport; it is negatively associated with controlled motivation (Appleton & Duda, 2016; Fenton et al., 2017). Conversely, a disempowering motivational climate is characterized by performance-oriented, controlling, and socially unsupportive features and thwarts the psychological need satisfaction, thereby undermining athletes' overall wellbeing and functioning (Duda, 2013). Indeed, previous research has demonstrated that features of a disempowering coaching climate are associated with student-athletes' increased risk of sport burnout (Appleton & Duda, 2016; Sorkkila et al., 2018) and even school burnout (Into et al., 2020) and are negatively associated with athletes' enjoyment of sport (Leo et al., 2009) and self-esteem (O'Rourke et al., 2014). Considering all of this in relation to gender is important because earlier studies have shown that burnout, for example, has different prevalence rates across genders and is more typical among females than among males (Sorkkila et al., 2017); in addition, wellbeing and DC satisfaction may be differently experienced by females and males, with the former typically placing more value on education and having lower levels of self-esteem and career adaptability than the latter (e.g., Nikander et al., 2021a; Ronkainen & Ryba, 2018; Viljaranta et al., 2022). Given that student-athletes often face gendered problems in their DC construction, the support they need from their coaches may differ by gender.

## 1.4 Coaching styles

In addition to the importance of coach-created motivational climates, earlier studies have often attempted to understand the coach's role in athletes' sport motivation in relation to two coaching styles: autonomy-supportive versus controlling (Amorose & Anderson-Butcher, 2015; Bartholomew et al., 2010; N. Smith et al., 2016). Similar to the research concerning coach-created motivational climates, these styles draw on the theoretical tenets of SDT, suggesting that coaches can either support the autonomy of their athletes or seek to control them (Amorose & Anderson-Butcher, 2015; Bartholomew et al., 2010; N. Smith et al., 2016). The main difference between the concepts of coach-created motivational climates and coaching styles is that the former refers to the social psychological environment in sport settings (Duda, 2013; Urdan & Kaplan, 2020), while the latter focus on coaches' interpersonal styles (Amorose & Anderson-Butcher, 2015; Bartholomew et al., 2010). A coach who adopts an autonomy-supportive coaching style creates an autonomy-supportive coach-created motivational climate. Despite these slightly different perspectives on coach behavior, in the existing literature these concepts are often presented as a single construct, suggesting that they refer to the same phenomenon (Appleton & Duda, 2016).

Parents have often been considered the most important gender role socializers for their children. Therefore, to better understand the gender dynamics in coach-athlete relationships, in this thesis coaching was approached from a theoretical perspective used earlier in the parenting literature; that is, through consideration of affection and psychological control. As in that parenting research, affection refers to the degree to which coaches emotionally support their student-athletes and provide them with warmth (Wouters et al., 2013). This style has been found to have positive consequences for healthy adolescent development (Aunola et al., 2013) and educational and career success (Wang & Eccles, 2012). A psychologically controlling coaching style, meanwhile, refers to coaches' attempts to control student-athletes' emotions and behaviors by psychological means such as inducing guilt and withholding affection (Aunola et al., 2013; Barber, 1996), and earlier studies have suggested that this style can be associated with negative developmental outcomes, such as problem behavior and internal distress (Aunola et al., 2013).

Drawing on the SDT perspective, the concepts of affection and psychological control can be seen as similar to autonomy-supportive and controlling coaching styles presented in the coaching literature. Drawing on both AGT and SDT, earlier coaching research (Amorose & Anderson-Butcher, 2015; Duda, 2013; R. Smith et al., 2009; N. Smith et al., 2016) has shown that mastery-oriented, autonomy-supportive, and socially supportive coaching behaviors contribute to athletes' and students' basic psychological need satisfaction and thus help athletes to develop a mastery-oriented conception of competence. Psychological control and the controlling coaching style, by contrast, thwart athletes' psychological need satisfaction and are thus linked to athletes' developing a performance-oriented conception of competence (Amorose & Anderson-Butcher, 2015; Duda, 2013).

In addition, the limited research examining gender in the coaching context has shown that both coach and athlete gender can shape the adoption of a specific coaching style. For example, Hovden and Tjønnndal (2019) and Norman (2016a) suggest that a coaching style characterized by empathy, communication, and cooperation is used more often by female coaches, whereas male coaches tend to demonstrate a coaching style characterized by controlling features and an authoritarian leadership style. The results are similar in the parenting literature, since females – that is, mothers – have often been found to exhibit more affective parenting style toward their adolescents. Fathers have often been found to demonstrate parenting styles characterized by controlling features; for a review, see Endendijk et al. (2016). While earlier studies have not examined how athletes' gender may influence coaching styles, studies in the parenting context have suggested that parents are more likely to show affective and autonomy-supportive parenting toward their daughters than their sons (Endendijk et al., 2017).

## 1.5 Theoretical frameworks of motivation

The recent literature on motivation has used many different frameworks for studying and understanding motivation among athletes and students (Anderman, 2020; Urdan & Kaplan, 2020; Wigfield & Cambria, 2010). To highlight the role of DCDEs and coaches in particular in the development of motivation, the thesis draws on two well established social-cognitive theories of motivation - motivational orientations (Ames, 1992; Anderman, 2020) and causal attributions (Weiner, 1985, 2018) - to emphasize the role of environment in the development of motivation.

### 1.5.1 Motivational orientations

As stated above, the main goal according to AGT is the demonstration of competence in achievement settings (Ames, 1992; Anderman, 2020; Nicholls, 1989), and the primary goal orientations are mastery orientation and performance orientation. Like mastery-oriented motivational climates, when an individual is mastery-oriented, motivation comes from developing competence or gaining mastery of a task, such as learning new skills, improving performance, and doing one's best. In this construction of competence, the perception of ability is self-referential. When an athlete is performance-oriented, the source of motivation is normative competence, such as winning and outperforming others and accomplishing a given task with less effort than others. Thus, in a performance orientation, the perception of ability is normatively or socially referenced (Anderman, 2020; Urdan & Kaplan, 2020).

Earlier research has shown that motivational orientations are related to a number of achievement outcomes in the domains of both sport and school. Typically, the sport mastery orientation has been associated with desirable outcomes, such as positive emotions and motivation for skill development, whereas the performance orientation has been associated with more maladaptive behaviors, cognitions, and emotions, particularly when an individual's perceived level of competence is low (Lochbaum et al., 2016). In the educational context, the mastery orientation has been associated with positive outcomes, such as students' intrinsic enthusiasm and greater engagement in learning (Maehr & Zusho, 2009; Wigfield & Cambria, 2010). The findings concerning performance orientation, however, have been less consistent: performance orientation has been associated with both adaptive achievement behaviors such as high levels of self-efficacy and task persistence and with maladaptive behaviors like low levels of self-efficacy, the use of self-handicapping strategies, the avoidance of help-seeking behaviors, and low task engagement (Tuominen-Soini et al., 2012; Urdan & Kaplan, 2020). Importantly, earlier studies conducted among student-athletes have shown that mastery goals in sport and school negatively predict student-athletes' feelings of cynicism and inadequacy in those respective domains, whereas performance goals in school predicted school-related cynicism (Sorkkila et al., 2018).

According to the earlier AGT literature (Ames, 1992; Nicholls, 1989; Urdan & Kaplan, 2020), individuals develop different motivational orientations during adolescence based on their experiences with significant others such as coaches. Athletes can develop different motivational orientations due to varied socialization experiences based on gender. More specifically, it has been found that female athletes often exhibit a greater mastery (Arens & Watermann, 2021; Hanrahan & Cerin, 2009) and a lower performance orientation than males in both sport and school. Meanwhile, a performance orientation has been found to be more typical for males in both sport (Ong, 2019) and school (Arens & Watermann, 2021). Therefore, because the motivational orientation an individual adopts can clearly influence their DC success, it is important to examine the kinds of motivational orientations young student-athletes develop and whether those orientations are gendered (see also Viljaranta et al., 2022).

### **1.5.2 Causal attributions**

Attribution theory is a motivational theory that has received considerable attention in past decades. It holds that causal attributions for success or failure guide future efforts (Weiner, 1985, 2018). Performance outcomes may be related to many factors (e.g., ability, effort, luck, or task difficulty), but individuals typically attribute succeeding or failing in competitive situations mostly to ability and effort (Weiner, 1985, 2018). According to attribution theory, factors that may account for performance outcomes can be classified across three dimensions: the locus of causality (internal or external), controllability (controllable or uncontrollable), and stability (stable or unstable). Ability is typically considered internal, stable, and uncontrollable; effort is considered internal, unstable, and controllable; task difficulty is considered external, stable, and uncontrollable; and luck is considered external, unstable, and uncontrollable (Weiner, 1985, 2018). Since effort and ability are the typical attributions individuals assign to their achievements, the present thesis focuses on these attributions.

The term attributional style refers to the ways individuals habitually explain the causes of their positive and negative performance outcomes (Abramson et al., 1978). In general, an attributional style is referred to as adaptive when the causes of successes are attributed to internal and stable factors like ability and the causes of failures are attributed to external and unstable causes like luck (Allen et al., 2020; Weiner, 2018). These kinds of attributions are also called self-serving (Allen et al., 2020; Mezulis et al., 2004) and may positively impact athletes' perceptions of their own ability, leading to higher hopes for and expectations of future success and increasing their efforts to succeed in the future. Learned helplessness is an example of a maladaptive attributional style, meaning that individuals fail to see the connections between their efforts and their achievements (Abramson et al., 1978; Yee et al., 2003). Another well-recognized maladaptive attributional style is the depressive attributional style, which involves a chronic style of attributing failures to internal, stable, and uncontrollable factors like lack of ability without attributing successful outcomes to one's own ability and/or effort (Seligman et al., 1979).

Prior studies have shown that athletes often have a self-serving attributional bias, attributing personal success in sport competitions to stable (ability) and controllable (effort) factors and personal failure to unstable and uncontrollable (e.g., bad luck) factors; for a review, see Allen et al. (2020). In the academic context, studies have shown that students often ascribe both their achievements and failures to internal factors like ability and effort (Graham, 2004; Weiner, 1985). Importantly, a recent variable-oriented study conducted among student-athletes in upper secondary sport school found that they attributed their positive sporting outcomes more often to their own efforts than they did positive outcomes in school (Van Yperen et al., 2021). This may be because student-athletes tend to prioritize sport and thus have a stronger desire for a positive athletic self-image than an academic one (Allen et al., 2020). Earlier sport studies also indicate that the self-serving bias in athletic contexts is not necessarily adaptive (Rees et al., 2005). In fact, Rees et al. (2005) argue that attributing failures to external factors can be maladaptive, since external factors are not under an individual's control. For example, if an athlete is not in a position to change an ineffective coach, ascribing failure to that coach will not increase faith in a more successful future.

Earlier attributional studies in sport psychology have often been cross-sectional and focused on examining state attributions; that is, attributions that individuals make about a specific situation and/or point in time (Coffee & Rees, 2011; Rasle et al., 2015). However, the novel approach adopted in the present thesis is to explore attributional styles, which is to say the general tendencies of individuals to account for failure and success (cf. Abramson et al., 1978; Enlund et al., 2015), to better understand how attributions can predict achievement outcomes over a longer period of time. While attributional styles are assumed to be relatively stable over time, the few earlier studies that have longitudinally examined the stability of causal attributions have focused only on the school domain and were carried out among primary school children and lower secondary adolescents (Clem et al., 2018). Therefore, the development and consistency of attributional profiles during later adolescence is inadequately understood. Understanding the extent to which attributions are state-like or trait-like characteristics and obtaining insights into the developmental trajectories of attributional styles is important because that can indicate whether and when interventions are needed to preserve adolescents' achievement motivation in both sport and school (Enlund et al., 2015; Weiner, 2018). Maintaining high levels of achievement motivation in both domains is crucial in terms of successful participation and attaining desired outcomes like progress in sport and completion of upper secondary education.

Earlier research provides conflicting evidence regarding the association between attributional styles and gender. For example, Seligman et al. (1990) found that female swimmers more often attributed failure in competitions to lack of ability, whereas for males it was more typical to attribute failure in competitions to lack of effort. More recent studies either did not find gender differences in attributions regarding athletic performance (Hanrahan & Cerin,

2009) or found that female athletes emphasize effort attributions more than male athletes (Butler & Hasenfratz, 2017). In the academic context, it has been found that it is more typical for females than for males to attribute failure to lack of ability, most often in activities that are stereotypically dominated by males, such as math and science; for a meta-analysis, see Meece et al. (2006). A better understanding of whether females and males develop different attributional styles can help to design more specified attributional interventions to alter maladaptive attributional styles for each gender. Therefore, it is important to further investigate gender differences in attributional styles, and especially the extent to which such differences occur across the domains of sport and education.

Additionally, the type of sport can influence athletes' attributional profiles. More specifically, it has been found that individual sport athletes make more internal, stable, and global, and less externally controllable attributions for sports successes, and more internal attributions for negative sports events compared to team sport athletes (Hanrahan and Cerin, 2009). It seems logical for individual sport athletes to make more internal attributions and perceive themselves as having a greater control and responsibility for their performance compared to team athletes as they do not have teammates to whom credit or blame can be attributed (Hanrahan & Biddle, 2002). Because team sport athletes may be at higher risk of developing a maladaptive attributional style than individual sport athletes, by better understanding the role of type of sport in causal attributions may provide means to effectively support team sport athletes' motivation and successful athletic outcomes. As only few studies thus far have investigated the role of type of sports in causal attributions, and none of these have investigated whether athletes' attributions extend to the school domain, the role of type of sport in causal attributions, and their implications for schooling, warrants further research.

Liu et al. (2009) found that upper secondary school students' attributions of academic success to effort predicted an increase in their school achievements across five school years, whereas attributions of success to ability did not. By contrast, Chen and Wu (2021) found that attributing academic success to ability was positively associated with academic achievement. Whereas attributions regarding academic success thus yield conflicting results, that is not the case with academic failures; research has consistently shown that college students who attribute academic failures to controllable factors (e.g., effort or strategy) perform better and are likelier to persist in their programs than those who attribute failures to uncontrollable factors (Hamm et al., 2020; Parker et al., 2016). In athletic contexts, studies examining the relationship between attributional styles and sport achievements have typically been cross-sectional and have supported the self-serving attributional style: athletes who perform well are likelier than low-performing athletes to attribute their success to internal and stable factors (Allen et al., 2020; Seligman et al., 1990). More recent experimental studies focusing on attributional retraining have shown that encouraging athletes to attribute failures to controllable and unstable factors positively influence their sport performance (Coffee & Rees, 2011; Rasclé et al., 2015). Similarly, Parker et

al.'s (2016) study focusing on first-year university students in Canada found that encouraging athletes to make controllable and unstable attributions for negative experiences in academic contexts significantly improved their academic performance and decreased their likelihood of course withdrawal over two semesters. Overall, although earlier research suggests that attributional styles can predict athletes' achievement levels and dropout rates in both sport and school, most of these findings are from short-term experimental studies focusing on attributional retraining in tightly controlled settings. Therefore, there is a need to examine student-athletes' attributional styles over longer periods of time, the extent to which gender is related to those profiles, and how the profiles predict real-life outcomes, such as student-athletes' sport success, school achievement, and sport dropout at the end of upper secondary school.

## 2 METHODOLOGICAL CONSIDERATIONS

### 2.1 Philosophical underpinnings

From a methodological point of view, the Finnish Longitudinal Dual Career Study (Ryba et al., 2016) draws on the key theoretical assumption of how psychological processes are folded into sociocultural ontogenetic historicity (Heft, 2013). With this in mind, female athletes' career construction can be viewed as a transactional process and an outcome of reciprocal interaction with socializing contexts (Sameroff, 2009). This means that social contexts like the DCDE can shape female athletes' career construction. To acknowledge the epistemological tensions of combining qualitative and quantitative methods, this thesis is positioned within the philosophical realm of critical realism and subscribes to ontological realism and a subjectivist epistemology (Denzin, 2017; Ryba et al., 2022; Sparkes & Smith, 2009). Critical realism assumes that the world is how it is regardless of the constructions and interpretations that people use to view it (Archer, 2007), which is important for obtaining objective measures of a fixed reality, such as athletes' motivation levels, at certain time points. At the same time, epistemological constructivism is important for understanding individuals' subjective experiences and employs a transactional developmental framework that views psychological experience as ongoing, inseparable from the sociocultural context, and arising out of a particular history. When positioned within critical realism, feminist poststructuralist theorizing on coaching can thus be regarded as a lens through which to view and interpret the real and material world. Therefore, the positioning of the thesis is that qualitative data will enhance the understanding of how the interviewed student-athletes' construct their psychological worlds and negotiate personal meanings in the discursive context of Finnish sport culture. Qualitative data collected from youth coaches and athletes will add insights to sport culture and DC discourse practices that can



support or constrain youth athletes' agency and development. The longitudinal quantitative data, meanwhile, will measure adolescent athletes' psychological processes as they unfold in a culturally meaningful way. Acknowledging the tensions between poststructuralist and critical realist theorizing on gender, this thesis seeks to show that in order to move beyond description and interpretation as poststructuralist research typically does, it may also be useful to focus on explanation and causality because they can offer researchers powerful tools to provide much-needed practical recommendations to change the status quo (Hull, 2020).

Studies 1, 3, and 4 are part of the Finnish Longitudinal Dual Career Study (Ryba et al., 2016), which follows Finnish adolescent student-athletes' across upper secondary school and investigates a number of risk and resilience factors related to DC construction. Further, the study examines the processes that produce differences in adolescent integration of sporting and academic pursuits, along with the ways in which cultural discourses of gender and sport enable or restrict individual development (Ryba et al., 2016). In Study 2, the data collected for the author's master's thesis on Finnish student-athletes' experiences in upper secondary sport schools was re-analyzed. The participants, procedures, and data analysis used in all studies are detailed in Table 1.

## 2.2 Ethics

All the studies in this thesis were conducted according to the ethical guidelines for human subjects of the American Psychological Association and meet ethical publication standards. The Finnish Longitudinal Dual Career Study was approved by The Human Sciences Ethics Committee of the University of Jyväskylä in June 2015. All the participants invited to the interviews in Studies 1 and 2 were informed about their rights to withdraw from the research at any point without consequence or prejudice. All invited participants agreed to be interviewed and signed an informed consent form prior to their interview. In Study 1, six coaches were interviewed in person at various locations, such as a university campus or training site. Due to the difficulty in arranging some meetings, four coaches were interviewed via Skype. The interviews lasted between 20 and 60 minutes, and the first author digitally recorded them and transcribed them verbatim. In Study 2, all student-athletes were interviewed in person at various locations, such as training sites or quiet coffee shops. The interviews lasted between 30 and 75 minutes and were conducted by the first author, digitally recorded and transcribed verbatim. Throughout the analysis of interview data in both Studies 1 and 2, the first author provided her initial interpretations, while the other authors served as friendly devil's advocates to refine her analysis (B. Smith & McGannon, 2018). To ensure the quality of the research, the first author critically reflected on her own position as a Finnish woman and sport professional with a background that combined cross-country skiing with higher education as a student-athlete. The first and the second

authors had weekly discussions during the analysis phase, and the results that were co-constructed in the analysis were presented several times to other members of the research group.

Prior to data collection in Studies 3 and 4, all participants were informed of their rights and provided written consent for their voluntary participation in the study. In Finland, informed consent from parents or guardians of young people over 15 years old is not required. At each measurement point (T1, T2, and T3), participants completed a self-report questionnaire during school hours. At the time the data was collected, there were a total of 13 upper secondary sports schools in Finland. The six sport schools were selected from across Finland and comprised 50% of all sport schools, indicating a representative subset. Moreover, the sample size ( $n > 200$ ) was – according to research on statistical power – large enough to apply structural equation modelling and latent profile analyses (Nylund-Gibson & Choi, 2018).

### **2.3 Person- and variable-oriented approach to quantitative data**

In this thesis, both person- and variable-oriented approaches were used to enhance the longitudinal quantitative data to study the development of student-athletes' motivation. Although each approach uses quantitative data, they have both theoretical and methodological differences; for a review, see Mäkikangas and Kinnunen (2016). The person-oriented approach focuses on how variables cluster within individuals and therefore assumes the heterogeneity of the population with respect to mean levels and changes in the phenomenon, while the variable-oriented approach addresses the relationships between different variables and assumes homogeneity with respect to the phenomenon (Mäkikangas et al., 2018).

Most earlier studies examining student-athletes' motivation have deployed a variable-oriented approach (Into et al., 2020; Lupo et al., 2015; Van Yperen et al., 2021; Viljaranta et al., 2022). However, as the Aunola et al.'s (2018) study makes clear, applying a person-oriented approach to examine student-athletes' motivation is beneficial because it provides the option to identify subgroups of student-athletes who demonstrate different motivational profiles. Additionally, it provides information about the proportion of the sample belonging to a certain identified subgroup and allows for an examination of how the proportion of the sample that represents a certain profile changes over time, along with individuals' developmental trajectories across the groups identified as showing different profiles based on the criteria variables (Bergman & El-Khoury, 1999).

TABLE 1 Overview of the original studies

Study	<b>Study 1</b>	<b>Study 2</b>	<b>Study 3</b>	<b>Study 4</b>
	“Women Easily Feel that They Have Lost a Year if They Don’t Ski Faster”: Finnish Ski Coaches’ Discursive Constructions of Gendered Dual Career Pathways	“I Was Excited to Train, so I Didn’t Have Problems with the Coach”: Dual Career Athletes’ Experiences of (Dis)empowering Motivational Climates	The Role of Gender and Coaching Styles in Adolescent Student-Athletes’ Motivational Orientations in Sport and School	Student-Athletes’ Causal Attributions for Sport and School Achievement in Relation to Sport Dropouts and GPAs
Project context	Winning in the Long Run (Ryba et al., 2016)	Author’s Master’s Thesis	Winning in the Long Run (Ryba et al., 2016)	Winning in the Long Run (Ryba et al., 2016)
Participants	10 (3 female, 7 male) elite youth cross-country ski coaches	17 talented and elite student-athletes (6 female, 11 male; ages 23–34)	248 (51% female, 49% male) student-athletes	391 (50.7% female, 49.3% male) adolescent student-athletes
Data collection points	Time 3 (Grade 2, fall)	One-shot interviews	Time 1 (Grade 1, fall), Time 3 (Grade 3, spring)	Time 1 (Grade 1,fall ), Time 2 (Grade 1, spring), Time 3 (Grade 3, spring)
Approach/Orientation	Qualitative, semi-structured interviews	Qualitative, semi-structured interviews	Quantitative, person-oriented	Quantitative, variable-oriented
Variables			Motivational orientations in sport Motivational orientations in school Coaching styles	Causal attributions Type of sport (individual vs. team) Gender Levels of sport competition Levels of school achievement Dropout
Analysis strategy	Reflexive thematic analysis	Thematic analysis	Structural equation modeling	Latent profile analysis

### 3 AIMS OF THE STUDY

The purpose of this thesis was to deconstruct the DC-ESF (Henriksen et al., 2020) from a gender perspective by using the empirical findings of four sub-studies and then to integrate the perspective of gender into current DC practices to ensure that women athletes will be more effectively supported by coaches and support systems.

- (1) How do coaches construct the dominant understanding of sport as a male space in their coaching practices and attitudes toward female athletes' DCs?
- (2) How are coaches' coaching styles as a part of DC processes related to the gendering of athletes' DC pathways?
- (3) Is young female athletes' motivation to pursue a DC different than that of males, and is their motivation related to their sport and school achievement and DC continuation?

To answer the three main research questions, the following sub-questions were asked and answered in the original publications:

- What are the discourses coaches draw on when talking about DCs in relation to the promotion of education and gender? (Study 1)
- What kind of coach-created motivational climates did the athletes experience in upper secondary? (Study 2)
- How did the perceived coach-created motivational climates impact athletes' DC experiences? (Study 2)
- Are there gender differences across upper secondary education in student-athletes' motivational orientations (i.e., mastery versus performance orientation) in a) sport and b) school? (Study 3)

- To what extent do coaches' coaching styles in terms of affection and psychological control play a role in student-athletes' mastery and performance orientations in a) sport and b) school? Are there gender differences in these associations? (Study 3)
- What kind of attributional profiles do student-athletes show at the beginning and end of the first year of upper secondary school? (Study 4)
- To what extent are gender and type of sport related to student-athletes' attributional profiles? (Study 4)
- How stable are student-athletes' attributional profiles across the first year of upper secondary school? (Study 4)
- How do attributional profiles relate to athletes' level of sport competition, school achievement, and sport dropout at the end of the third year of upper secondary school? (Study 4)

This dissertation brings together results from the original publications to answer the three main research questions, each of which is addressed in its own section in the Discussion chapter of this dissertation. More specifically, research question (1) is answered in section 5.1, research question (2) in section 5.2, and research question (3) in section 5.3.

## 4 OVERVIEW OF THE ORIGINAL STUDIES

### 4.1 Study 1

#### **“Women easily feel that they have lost a year if they don’t ski faster”: Finnish ski coaches’ discursive constructions of gendered dual career pathways**

Situated in feminist poststructuralism (Butler, 1990), Study 1 focused on exploring how Finnish ski coaches discursively construct athletes’ education and gender in their talk and coaching practices. Similarly, how coaches’ beliefs about athletes’ holistic development are interlinked with broader sociocultural discourses on gender was examined. The findings revealed that coaches’ discursive practices regarding athletes’ education depended on their athletes’ ages. For skiers in secondary education, the coaches predominantly drew on DC discourses that emphasized the compatibility of sports and education, but for athletes transitioning to senior-level sports, they drew on dominant performance discourses as they believed that athletes at that level should prioritize sport (Carless & Douglas, 2013). These views translated into coaching practices only for skiers who competed in senior-level sports, suggesting that the promotion of education in DC discourses is an empty ideology as long as it remains rhetorical and is not put into practice. Moreover, the interviewed coaches discursively constructed a holistic perspective on athlete development that is especially important for female athletes, who were perceived as less capable of excelling in sports and therefore needing to invest in multiple careers (Kavoura & Ryba, 2020; Ryba et al., 2021). By drawing on gender stereotypes and a binary understanding of gender, the coaches discursively reproduced gender hierarchies and unequal power relations in sports. These gendered discourses may influence athletes’ DC aspirations and the gendering of DC pathways. The results suggest that coaches

could benefit from interventions broadening their discursive resources for holistic coaching.

## 4.2 Study 2

### **“I was excited to train, so I didn’t have problems with the coach”: Dual career athletes experiences of (dis)empowering motivational climates**

Drawing on the theoretical tenets of empowering coaching (Duda, 2013), Study 2 examined student-athletes’ perceptions of empowering and disempowering motivational climates and their possible implications for athletes’ DC experiences. The results showed that a majority of athletes had experienced the coaching climate as disempowering and characterized by ego-involving, controlling, and socially unsupportive features. Based on these experiences, it seemed that coaches’ main concerns in upper secondary sport schools was to ensure their athletes’ development in sport, without giving much consideration to their holistic development as people and across contexts. It is concluded that athletes who perceive education as a less important life domain than sport may decrease their motivation to pursue an academic track, which could challenge their exploration of future vocations outside the sporting context. In light of the findings, DC athletes could benefit from coaches fostering more empowering coaching climates that support athletes’ determination to succeed in both sport and education. This change in climate could be facilitated by helping coaches to develop coaching practices with a greater focus on athletes’ holistic development across various contexts.

## 4.3 Study 3

### **The role of gender and coaching styles in adolescent student-athletes’ motivational orientations in sport and school**

Study 3 examined the gender differences in student-athletes’ motivational orientations in sport and school across upper secondary sport school and the role of coaching styles in these orientations from a variable-oriented approach. The gender differences in coaching styles – in terms of student-athletes’ gender, coaches’ gender, and their interaction – were also examined. The results revealed that female student-athletes demonstrated higher levels of mastery orientation than males in both sport and school. No gender differences were found in relation to performance orientation. Second, the results revealed how an affective coaching style predicted male student-athletes’ mastery orientation in sport and both male and female student-athletes’ mastery orientation in school. Third, female coaches were reported to use more of an affective coaching style than male

coaches. Overall, the results suggest that female student-athletes' higher levels of mastery orientation illustrate their greater need to invest in both athletic and academic goals. However, it should be noted that the result may reflect how competitive behavior (i.e., developing a performance orientation) is valued as highly for female student-athletes as it is for males. The results further support this view by showing how male student-athletes may have received acknowledgement from a performance-oriented approach in their earlier interactions with coaches and therefore benefit more from coaches' emotional support and warmth than do females. The findings also confirm that by using an affective coaching style, coaches can support both female and male student-athletes' successful DC construction. The results can be used in coach training to educate coaches on the benefits of an affective coaching style in terms of student-athletes' mastery orientation in both sport and school. This could be especially relevant for male coaches, who were found in this study to demonstrate less affection in their coaching styles than female coaches.

#### **4.4 Study 4**

##### **Student-athletes' causal attributions for sport and school achievement in relation to sport dropout and GPA**

Study 4 longitudinally examined stability and change in the attributional profiles of student-athletes and the extent to which these profiles and the changes in them were associated with athletes' level of sport competition, school achievement, and sport dropout at the end of the third year of upper secondary school. Similarly, the extent to which student-athletes' gender and type of sport (team or individual) were related to their attributional profiles was examined. Using a person-oriented approach, the results revealed five different and highly stable attributional profiles: (1) "depressive" (6.9%), characterized by weak effort attributions for sport and school success and weak ability attributions for school success; "athletic self-serving" (23.0%), characterized by strong effort and ability attributions for sport success and weak effort and ability attributions for sport failures; (3) "average" (16.4%); (4) "learned helplessness" (30.9%), characterized by weak effort attributions for sport and school success, and; (5) "responsible" (22.8%), characterized by strong effort attributions for sport success and strong effort attributions for sport and school failures. Gender and type of sport were only marginally related to student-athletes' attributional profiles: females and individual sport athletes were overrepresented, and males and team sport athletes were underrepresented among those who displayed a responsible attributional profile. The results also showed that the attributional profiles and changes in them over the three-year study period related to the student-athletes' subsequent grade point averages and sport dropouts, even after controlling for the impacts of their earlier grade point average, gender, and type of sport: student-athletes with a responsible attributional style had higher grade point



averages and were less likely to drop out of sport than student-athletes with the other attributional profiles. Overall, the results suggest that the attributions individuals use to account for their successes and failures play important roles in guiding future motivation, effort, and achievements.

## 5 RESULTS AND DISCUSSION

In this chapter, a synthesis of the results of all the four sub-studies is presented to answer the three main research questions. The empirical version of the DC-EFS model based on the findings (see Figure 2) is presented to show how the findings can be understood through that model's lens. This is also detailed in more detail in the different sections below. While the results presented in this chapter are discussed in a linear fashion, it is important to recall that complex phenomena are not linear; rather, they are deeply multilayered and evolve over time (McDougall et al., 2020).

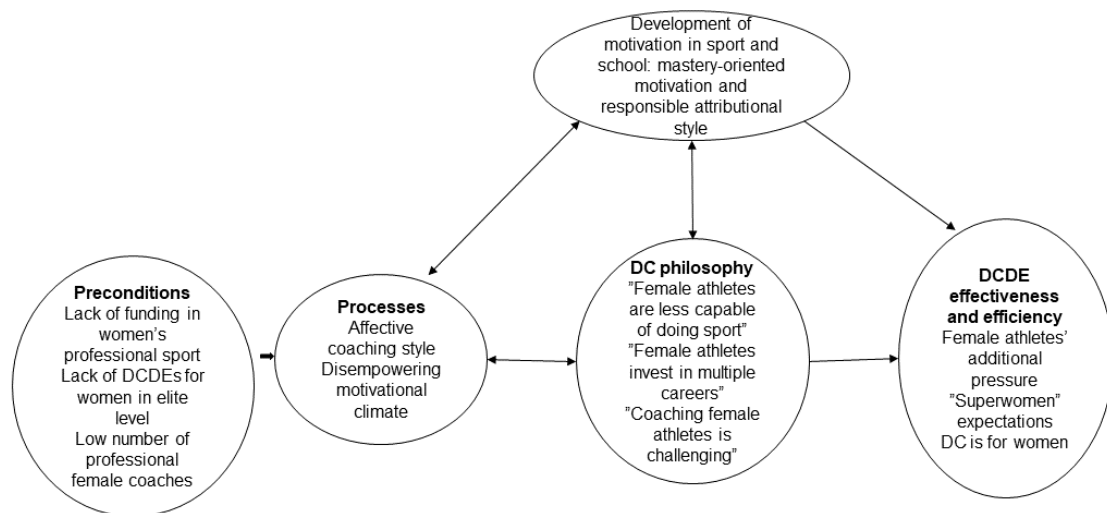


FIGURE 2 The DC-ESF empirical model

## **5.1 Coaches' understanding of sport as a male space and the construction of these ideas in their coaching practices and attitudes toward female athletes' dual careers**

The first aim of the thesis was to understand how coaches' understanding of sport as a male space led them to build these ideas into their coaching practices and attitudes toward female athletes' DCs. The goal was thus to unpack how the DC philosophy and the basic assumptions underpinning it shape coaches' coaching behaviors with female athletes. This research question was explored in Study 1 (interviews with elite youth ski coaches) and Study 2 (interviews with talented and elite student-athletes).

### **5.1.1 Holistic development is important for female athletes**

The key finding regarding this research aim showed that Finnish ski coaches constructed a holistic perspective on athlete development that is especially important for female athletes. The layered meanings embedded in that perspective depended on three subthemes that support the view that holistic development is important for female athletes: (1) *female athletes are less capable of doing sports*, (2) *female athletes need to invest in multiple careers*, and (3) *coaching female athletes is challenging*.

#### **5.1.1.1 Female athletes are less capable of doing sports**

Aligning with previous studies (e.g., de Haan & Knoppers, 2020; Edwards, 2007; Grahn, 2014), the first subtheme constructed showed that coaches drew on the discourse on female biological inferiority (Kavoura et al., 2015, 2018) to explain why holistic development was specifically important for female athletes. This discourse constructs female athletes as less capable of doing sports than male athletes by suggesting that their bodies are fragile and incapable of high-intensity training due to, for example, their reproductive nature (McGannon & Spence, 2012). Similarly, it assigns several characteristics to women that are undesirable in an elite sporting context: passivity, softness, fragility, pain intolerance, and a lower capacity to manage the physical and mental demands of elite sports (Felton & Jowett, 2013; Grahn, 2014; Krane et al., 2004; LaVoi et al., 2007). Julius (M, upper secondary school coach) put it this way:

In our upper secondary school, girls and boys train together and follow the same training plan. You need to monitor the training load for girls more carefully . . . [because] they easily become perfectionists. They give 100% in school, and [because] they usually haven't been coached by anyone at home . . . it seems that they have an urge to give their best to coaches all the time. Girls' social relationships also seem to stress them. The internal competition here is high, and it is even higher for girls than for boys. All of this causes stress, and especially for girls, it is important to monitor and control the entire workload so that they can react faster. Many of the athletes do not admit that they are tired; this is the biggest challenge here—not so much with the boys, though, as most of them have trained way more . . . than girls. Boys are more prepared to train, and . . . their bodies develop in such a way that they don't have to pay for mistakes in

the same way; the levels of testosterone and anabolic hormones are so high they recover no matter what they do.

Because these sets of knowledge appear scientific and are often included in coaching education textbooks and materials (Grahn, 2014; LaVoi et al., 2007), coaches may accept them as objective truths and draw on them in their coaching practices or when talking about their female athletes. In doing so, coaches reproduce the idea that female bodies are flawed and fragile (Krane, 2001; McGannon & Spence, 2012) and thus reconstruct the associated power relations and gender hierarchies in sport.

### 5.1.1.2 Female athletes need to invest in multiple careers

The analysis showed that coaches drew on discourses about gender differences and, in doing so, reinforced the “superwoman” expectations of female athletes (Ekengren et al., 2019; Kavoura & Ryba, 2020; Ronkainen et al., 2016; Skrubbeltrang, 2019). The superwoman concept refers to the national ideals of womanhood according to which women are expected to “succeed at everything” and balance the cultural and societal demands they face (Kavoura & Ryba, 2020; Ryba et al., 2021). For example, Elmeri (M, upper secondary school coach) explained how female athletes experienced greater societal and cultural expectations to invest in DCs, whereas boys could be more relaxed about their career aspirations:

Completing your upper secondary school studies successfully is a phase to begin with. Thereafter, you can sign up with an educational institute to make sure that you have a Plan B if the athletic career does not proceed as well as you hoped. Here, we see a difference between girls and boys: it doesn't seem to bother boys, but it does bother girls emotionally if they don't study or do anything else besides their sports. Relatives more often ask girls what else they do besides sports, and it is more challenging for them to say, “I don't do anything else.” For boys and men, it's easier to say, “I am a professional athlete.”

Part of the superwoman construct, according to Kavoura and Ryba (2020), is that Finnish female athletes are subjected to national ideals of womanhood that expect them to live independent lives without complaining about any societal and patriarchal pressures they experience (see also Kavoura et al., 2018; Ronkainen et al., 2016, 2021; Ryba et al., 2021). However, when young female athletes are expected to live up to this ideal, they experience increased pressure to keep up with all the sporting and societal demands they encounter (Kavoura & Ryba, 2020) Indeed, the coaches noted how female athletes are perfectionists for whom achieving success means that their year has been used efficiently:

Both men and women are perfectionists in terms of achievement, but . . . when you give feedback after training about what went well and what could be improved, women are not as good at analyzing the feedback, going through it, and thinking, “Alright; next time, I'll do better.” They easily get stuck thinking about the things that didn't go well; they can't seem to . . . move on. All of this takes a lot of time. Another thing is that it is easier for men to decide that they want to be high-performing athletes, whereas women may . . . be more worried that they won't be able to ski faster next year; they may get the feeling that . . . they have lost a year and should have done something else, such as study or work (Waldemar, M, junior national team coach).

The superwoman ideal may support women's athletic and academic excellence by providing an empowering discourse for women who are expected to achieve equality and economic independence through education. However, it is also linked to patriarchal discourses that reinforce the gender order and positions women in "a balanced totality" of needing to handle multiple roles perfectly, such as being excellent mothers, earning their own living, and being active citizens (Ryba et al., 2021). The pressure associated with this ideal makes female athletes more vulnerable by bringing with it risk factors for psychosocial distress, such as anxiety and depression (Ronkainen et al., 2021). Moreover, the Finnish superwoman ideal is linked to national DC discourses in Finland that endorse individual responsibility and an "it's up to me" attitude without recognizing the barriers created by gender hierarchies (Kavoura & Ryba, 2020; Ryba et al., 2021). Waldemar (M, junior national team coach) offered:

With women, you need to talk a lot and try to convince them to enjoy the things they are doing right now instead of focusing on doing things to develop [as an athlete] . . . [to] understand this as a stage of life during which, even if you don't become a professional athlete, you gain many different experiences from training and traveling; this really prepares you for everything. Women are not as strong at valuing this process or valuing the things they are doing right now; rather, they want to see results.

Finally, coaches drew on discourses about gender differences and/or female biological inferiority (i.e., female athletes have different emotional, psychological, and physical dispositions from male athletes, are less likely to succeed in sports, and therefore need to invest in multiple careers). This kind of talk feeds into the superwoman ideal that, while it can be viewed from one perspective as empowering, continues to be linked to a patriarchal gender order that, at bottom, holds that men do not have to do as much to be valued, succeed, access resources, and gain respect (Krane et al., 2004; McGannon & Busanich, 2010; Ryba et al., 2021).

### **5.1.1.3 Coaching female athletes is challenging**

In line with previous studies (de Haan & Knoppers, 2020; LaVoi et al., 2007), the coaches' stories showed that they constructed a holistic perspective on athletes' development as particularly important for female athletes by drawing on discourses about gender differences, highlighting that female athletes differ from male athletes and are therefore less capable as athletes. These discourses gain meaning from stereotypical binary understandings of gender, suggesting that male athletes are the desirable norm in sports, whereas female athletes are deviant and disrupt that norm (de Haan & Knoppers, 2020). These discourses compare male and female athletes and construct female athletes as physically and mentally inferior, fragile, and emotionally needy (Edwards, 2007; McGannon & Spence, 2012). For example, the coaches in the present study did not refer to female behavior in a positive manner, but rather drew comparisons that described the characteristics that are desirable in men as lacking in women (see also Ronkainen et al., 2016). Elmeri (M, upper secondary school coach) claimed:

There is a big difference in how I coach girls and boys . . . You cannot coach girls by joking around. When they approach you with their worries and troubles . . . you need to listen to them and to understand. For boys . . . you can just say, "That's nonsense. Go and train." Girls may have worries that have nothing to do with sport or that are [only loosely] related to sport. Girls are more sensitive and more difficult, but . . . they are also more grateful and diligent. The psychological side of coaching girls is different. And one more difference is that girls are way more jealous than boys. Male athletes don't care if I spend more time with other athletes, whereas with girls . . . you need to be very careful that you spend as much time with all of them; they may easily get the feeling that "The coach only spends time with the other athlete and is no longer interested in me."

Earlier researchers argue that coaches may adopt normative ideas of male superiority in sports through their own cumulative coaching experience; since most of the coaches were men, it is likely that they had been coached in the past by men who valued masculine characteristics (Denison & Avner, 2011). In addition, educational materials used in coaching often emphasize practices associated with desirable athletic masculinity and male ways of doing and being, explaining how women may differ from the masculine norm (LaVoi et al., 2007; Norman, 2016b; Norman & Simpson, 2022). By drawing on discourses about gender differences, the coaches positioned their female athletes as disrupting the norm, not playing the role of elite athlete correctly, and therefore needing to focus on holistic development (Ryba, 2022; Ryba et al., 2021). This construction of abnormality may undermine young female athletes' ability to see themselves as "real" athletes since they do not fit the standard formation of the athletic subject (Kavoura et al., 2015; Krane, 2001; Krane et al., 2004). By constructing female athletes as more challenging to coach, the coaches also reproduced the dominant power relations that position male athletes at the top of the gender hierarchy.

### **5.1.2 Fluid positioning of education**

This theme showed that the ski coaches simultaneously constructed two meanings for athletes' education. These layered meanings depended on two themes feeding into the fluid positioning of education: (1) secondary education is important, and (2) sport is the priority at the senior level. The themes show that the coaches constructed contradictory meanings in different discourses depending on their athletes' ages, which had different implications for their coaching practices.

#### **5.1.2.1 Secondary education is important**

Aligning with earlier studies (e.g., Bjørndal & Ronglan, 2018; Nikander et al., 2020; Ronkainen et al., 2018), all the interviewed ski coaches drew on emerging DC discourses that promote the compatibility of sports and education when talking about education with their school-age skiers. For example, a one upper secondary school coach, Elmeri (M), said, "It is important that athletes take good care of their studies in secondary education." Coaches' talk about the compatibility of sport and education reflected the national cultural landscape, with its long-standing history of structural agreements between sporting and

certain upper secondary schools facilitated by the Finnish Ministry of Education and Culture (Morris et al., 2021; Nikander et al., 2021b). However, while drawing on DC discourses to champion the education of young athletes, coaches highlighted its instrumental role in supporting athletic development or providing something to fall back on if athletes failed in their sports (see also Nikander et al., 2020; Ronkainen et al., 2018; Ryba, 2022). This idea is illustrated by a quote from junior national team coach Juhani (M):

Combining sport and education is central here in sport upper secondary schools, and we try to make it work as well as possible . . . Athletes who really have a chance to reach the elite level one day, for whom developing an athletic career is a priority, need to have an upper secondary school diploma. It's important to make sure that their studies proceed nicely . . . to support athletic development. When their studies proceed nicely, so does the sport (usually). If athletes face problems in their studies, it negatively influences sport performance, as it causes athletes stress.

Indeed, DC discourses suggest that education is a good backup plan for those who cannot pursue professional athletic careers or who need another occupation when their athletic careers end (Ronkainen et al., 2018). Because the everyday discourses that provide the meanings that constitute our everyday practices limit understanding and, by extension, sport coaching practices (McGannon & Busanich, 2010), the interviewed ski coaches were unable to provide practical examples of how their DC beliefs shaped their coaching practices with young skiers. This apparent inability to articulate the effects of their own beliefs indicates that the current discussions regarding education in dominant DC discourses and/or a lack of engagement with educational discourses that intrinsically value education, regardless of whether sports become professional pathways for athletes, limit coaches' opportunities to transform their DC beliefs into coaching practices (Nikander et al., 2020; Ronkainen et al., 2018). Instead, coaches end up reproducing the cultural practices that prioritize sports over education (Ronkainen et al., 2016).

#### **5.1.2.2 Sport is the priority at the senior level**

As the main theme showed, the Finnish ski coaches constructed contradictory meanings in different discourses, depending on their athletes' ages. In line with earlier studies (Ronkainen et al., 2018; Rothwell et al., 2020), coaches predominantly drew on the dominant performance discourse in such talk to give meaning to athletes' education when transitioning to senior-level sports. The dominant performance discourse privileges high performance and winning over other values and is often prioritized in the elite sporting world; it typically overshadows the Finnish sporting culture (Ronkainen et al., 2016). This discourse suggests that "winning is everything," meaning that performance-related concerns infuse all areas of life, while other areas like education and personal relationships are downplayed (Carless & Douglas, 2013). Elmeri (M, upper secondary school coach) drew on the performance discourse to explain why he believed that sport and education were incompatible at the senior level: "When you become a professional skier and join a national team, especially if you are successful, there is no time to study." Indeed, the performance discourse holds

that the only way to achieve success in elite sports is to centralize sport performance in one's life, even if this means neglecting other areas of life, such as education (Carless & Douglas, 2013; Ryba et al., 2021). As poststructuralist researchers have argued (e.g., McGannon & Busanich, 2010), language and discourse shape the ways people think and behave and in this case, the dominant discourse on sport performance shapes coaches' perspectives and coaching practices. For example, Wilhelm (M, junior national team coach) offered:

As a coach, I need to support my athletes' decisions. If they want to study, then they do that. However, . . . I don't see university studies as a positive influence on sports. That's why I don't try to convince my athletes to study . . . I think it's quite clear that if they choose to study, they cannot train optimally. It is okay for me if that is something the athletes want to do, but I want to make sure that they really understand what such a decision means. In that case, athletes need to accept that they must train less than others, and we can only wait to see whether that amount of training is enough.

Earlier studies have suggested that when the structures facilitating the systemic integration of high-performance sport and higher education are lacking, as in Finland, student-athletes who invest in sports and education are at risk of lowering their athletic aspirations. Similarly, those who invest in sports by aligning themselves fully or largely with the performance discourse may experience increased tensions and discontinue education (Skrubbeltrang, 2019). Therefore, the risk is that coaches who emphasize exclusively high performance and values at the higher education level may eventually cause athletes to drop out of education *and* sport. Similarly, by drawing so extensively on the performance discourse, coaches reproduce the cultural landscape that privileges high performance over other values and meanings in sport, constructing it as a natural part of doing athletics (McGannon et al., 2015).

### **5.1.3 Athletes' experiences with disempowering motivational climates**

Along similar lines, a majority of the student-athletes' accounts in Study 2 showed that they had experienced coach-created motivational climates in upper secondary sport schools as disempowering due to the coaches' exclusive emphasis on athletic development and performance-related concerns. These climates were often characterized by performance-oriented, controlling, and socially unsupportive features due to the coaches' emphasis on performance improvement, which dominated their coaching practices with athletes (Duda, 2013; Felton & Jowett, 2013). For example, nine interviewed athletes had experiences of performance-oriented coaching climates characterized by coaches focusing on athlete development and performance outcomes. Juho (M) put it this way: "The coach was passionate to help drive us forward in our athletic career, while Teemu (M) noted, "Our coach had the aim that each of us must be able to reach better performance outcomes by the end of upper secondary school." The athletes also described how their athletic achievements and successfully reaching goals the coaches had set for them influenced coaches' interest in them. It was clear from the outset that better athletes would receive more attention from the coach: "I was not the best, but when I achieved my first top three result in



Junior Nationals, I noticed how the coach was more motivated to spend time with me” (Teemu, M). Anniina (F) agreed, noting that “our coach was performance-oriented. He was more supportive of those athletes who really wanted to develop as athletes and to achieve good performance outcomes. Those athletes who didn’t have the passion for sport were often left without attention.”

Similarly, nine athletes recalled experiences of controlling coaching climates. For example, many participants recalled how, in order to get along with the coach, it was important to demonstrate high levels of motivation and dedication for training. Eemeli (M) stated, “I know that the way the coach treated us was dependent on our dedication to sport. For example, if someone missed the practices, the coach wouldn’t invest as much attention in them anymore.” Ville (M) put it this way: “I was very excited to train so I didn’t have problems with the coach. Conversely, athletes with less commitment to sport had problems with the coach. He was more controlling for athletes with less motivation, and this resulted in their having a poor relationship.”

Finally, eight athletes shared their experiences with socially unsupportive coaching climates in which the coaches were concerned about the athletes’ athletic performance and did not demonstrate any additional interest toward them as individuals. This climate dimension was clearly linked to coaches dismissing athletes’ educational pursuits and their need for holistic coaching, as shown in their accounts. Similarly, it seemed that young women in particular suffered when coaches dismissed their going to school as well as competing:

I think the coaches only cared about our sport performance. This was not good at all because if you needed help with non-skiing problems, it felt like there was no one helping you. From my experience, it would be really important for coaches and athletes in sport upper secondary school to have a good relationship outside training time. Being able to trust the coaches and interact with them would most certainly reduce the problems athletes encounter in their daily lives. Athletes may live far away from home, and they may get easily lured into bad habits, such as drinking. Having a good relationship with a coach would really help the athletes to stay focused and to avoid such situations. (Tiia, F)

Niilo (M) had similar experiences:

We had a good coach, but of course he only focused on the sport classes. He didn’t pay any attention to our educational pursuits. From my experience, sport and school were quite separate. If they had been better integrated, the coach might have asked how we were doing at school, for example. His interest in our educational pursuits would have helped because he had a lot of authority, and we always did what he told us to do. If he had asked how I was doing at school and suggested not taking that many classes at once, I probably would have believed him.

Based on the interviewed athletes’ experiences, coaches’ main concerns in sport upper secondary schools appears to have been to ensure their athletes’ sporting development without giving much if any consideration to their holistic development across various contexts. Indeed, the coaches did not appear to demonstrate an active interest in or take into account athletes’ educational pursuits in their daily coaching practices. It is possible that athletes could internalize their coaches’ normative views of education as unimportant and thus be disinclined to pursue their academic goals (Ronkainen et al., 2018). Indeed, as

coaches are important motivational agents for and socializers of young athletes, it is somewhat concerning that they did not experience athletes' education as important (Bjørndal & Ronglan, 2018; Knight et al., 2018; Wylleman et al., 2013). One reason for this may be that the coaches in the present study worked in sport upper secondary schools, which are competitive environments that exert pressure on coaches to perform well and to bring medals and glory to their school (see also Ronkainen et al., 2018). However, when drawing on the performance discourses on elite sport among young athletes the coaches reinforce the dominant power relations in sport that privilege winning above other values and meanings. As shown in Study 1, this may be especially problematic for young female athletes who experience more cultural and societal pressure to also invest in their educational goals, which is the basic principle of the DC approach (Ekengren et al., 2019; Kavoura & Ryba, 2020; Ryba et al., 2021), placing them at odds with the aims and practices of coaches.

## **5.2 The relationship between coaches' coaching style and the gendering of athletes' dual careers**

The second aim of the thesis was to explore whether coaches' coaching styles are related to the female athletes' motivation to pursue DCs. In the DC-EFS model, coaching styles can be understood as DC processes because they are daily functions within an environment that combines with the organizational culture (Schein, 1990) to shape student-athletes' development (Book et al., in press; Nikander et al., 2020). This research aim was addressed in Study 3, in which the role of coaching styles regarding affection and psychological control in student-athletes' motivational orientations in sport and school were examined.

### **5.2.1 The role of coaching styles in male student-athletes' sport motivation**

The results of Study 3 showed that *male* athletes especially benefited from an affective coaching style: the higher the level of coach affection, the greater the level of student-athletes' mastery-oriented motivation in sport at the end of the third year of sport upper secondary school. This finding contradicts previous research suggesting that female student-athletes' benefit more from an autonomy-supportive coaching style in terms of their intrinsic motivation in sport (Amorose & Horn, 2000). This result could mean that, according to traditional views on masculinity, male athletes may have received acknowledgement from a performance-oriented approach in their previous interactions with coaches (Ong, 2019) and consequently benefit more from coaches' emotional support and warmth compared to females. It is important to note that a gendered effect was found for coaches' affection, which is different from the concept of *autonomy support* used in earlier studies. One explanation could be that male student-athletes spend more time on sports-related activities and therefore develop closer (i.e., more affective) relationships with their coaches

than do females. The finding highlights that many taken-for-granted gender stereotypes in sport, such as holding that female athletes are needy and require more emotional support from coaches (de Haan & Knoppers, 2020), are not supported by empirical evidence and that it is important to actively work toward changing them.

### **5.2.2 The role of coaching styles in student-athletes' school motivation**

In Study 3, the issue of how coaching styles in terms of affection and psychological control predicted student-athletes' motivational orientations in school across the three years of upper secondary school was further explored. With the current DC policy and the notion that DCDEs should be able to support athletes' academic performance mind, it appears that understanding coaches' role in athletes' academic motivation is paramount (European Commission, 2012). Indeed, the results in this thesis extends the current understanding of coaches' role in supporting athletes' motivation by showing that an affective coaching style predicted student-athletes' mastery-oriented motivation in school at the end of the third year of sport upper secondary school. This finding is an important contribution to the DC literature (Henriksen et al., 2020; Knight et al., 2018; Nikander et al., 2020) because it shows that coaches' affection, in the sense of a warm and supportive relationship with student-athletes, supports those young people's mastery orientation, not only in the athletic domain but also in school. This finding provides further support to the assumption that coaches are important motivational agents for young athletes in the school domain and that by adopting an affective coaching style, they can support their student-athletes' opportunity to pursue education alongside sports and thus contribute to the effectiveness of the DCDE. Arguably, affective coaching may provide a buffer against student-athletes' withdrawal from school *and* sports, as it has been shown that talented adolescents with dual motivations, especially females, are likely to give up sport prematurely when the tension between the two tracks increases (Ryba et al., 2021).

### **5.2.3 The role of student-athletes' gender, coaches' gender, and their interaction**

In Study 3, the role of student-athletes' gender, coaches' gender, and their interaction in coaching styles in terms of affection and psychological control were also examined. In accord with earlier but limited research, the results showed that female coaches exhibited more affection in their coaching style than male coaches; for a review, see Endendijk et al. (2016). However, no gender differences were reported in terms of coaches' psychological control. Because the affective coaching style has been found to be related to higher mastery orientation among student-athletes and is apparently used more often by female coaches, their method of coaching may be more effective at supporting student-athletes' DC construction. This finding suggests that despite the social perceptions of gender that typically marginalize female coaches and frame them as less capable as

professionals (e.g., Norman, 2016a), female coaches may actually be *more* effective at providing holistic support for student-athletes. As neither student-athletes' gender nor the interaction term *student-athletes' gender X coaches' gender* was associated with coaching styles in terms of affection and psychological control, future studies should continue to examine how student-athletes' gender and coaches' gender shape coaching styles, and how these might influence the ways athletes develop motivational orientations (Norman, 2016a, Norman & Simpson, 2022) in different DCDEs and with different samples to gain a more comprehensive view of the phenomenon.

### **5.3 Female athletes' motivation to pursue a dual career pathway and its relationship with sport and school achievement and dual career continuation**

The third aim of this thesis was to explore whether young female athletes' motivation to pursue DCs is similar to that of males and whether their motivation is related to their sport and school achievement and DC continuation. This research question was addressed in Studies 3 and 4. The DC-EFS model shows that student-athletes' development as athletes, students, and people is a key success factor contributing to the effectiveness and efficiency of a DCDE (Book, 2022; Henriksen et al., 2020). Keeping in mind the central role of motivation in guiding future strivings and achievement (Anderman, 2020; Aunola et al., 2018; Urdan & Kaplan, 2020; Weiner, 2018) and the need for student-athletes' to demonstrate high levels of motivation in both sport and school (Aunola et al., 2018; Lupo et al., 2015; Viljaranta et al., 2022), it can be assumed that the ways student-athletes' motivation develops across the school years also contributes to their DC success.

#### **5.3.1 Female athletes' motivation to pursue a dual career**

First, Study 3 focused on examining gender differences in adolescent student-athletes' motivational orientations across the three years of sport upper secondary school in both sport and school domains. In alignment with another recent study (Viljaranta et al., 2022), the results showed that female athletes demonstrated higher levels of mastery-oriented motivation than males in both sport (Hanrahan & Cerin, 2009) and school (Arens & Watermann, 2021) across the three years of sport upper secondary school. No gender differences were found in relation to performance orientation. This finding suggests that, due to their mastery orientation, female athletes appear to invest in their DCs and are engaged to do well in both domains (see also Viljaranta et al., 2022). This result may reflect how female athletes often experience cultural and societal pressure to excel in multiple roles simultaneously and are therefore more likely to invest in DC goals and identities than are males (Ekengren et al., 2019; Ryba et al., 2021). Indeed, earlier studies have suggested – and this thesis has already shown – that

the pressure young female athletes experience is linked to beliefs about how female athletes are inferior to male athletes and how pursuing a professional sporting career is not considered as a real option for them (Kavoura & Ryba, 2020; Ryba et al., 2021). Female athletes have been found to feel less competent than male athletes in sport (Ronkainen et al., 2016), are less likely to aim for a professional career in sport (e.g., Kavoura & Ryba, 2020), and are at greater risk of dropping out of sport than males (Skrubbeltrang, 2019). Due to the structural inequalities that limit female athletes' access to professional athletic careers, they also have a greater need to engage in DC goals than do males (Lämsä, 2018).

Second, Study 4 examined whether adolescent female and male athletes demonstrate different attributional profiles at the beginning of sport upper secondary school, how stable these profiles were across the first year of sport upper secondary school, and how they were related to athletes' level of sport competition, school achievement, and sport dropout at the end of the third year of sport upper secondary school. The results showed that five different and highly stable attributional profiles were identified among student-athletes. The first and smallest (6.9%) attributional profile, "depressive," was characterized by weak effort attributions for sport and school success and weak ability attributions for school success. "Athletic self-serving," the second profile (23%), was characterized by strong effort and ability attributions for sport success and weak effort and ability attributions for sport failures. The third profile (16.4%) was characterized by neither particularly strong nor weak attributions to ability and effort for success or failure across domains and was thus labeled "average." The fourth profile (30.9%) was characterized by weak effort attributions for sport and school success and was labeled "learned helplessness." Finally, the fifth profile (22.8%) was characterized by strong effort attributions for sport success and strong effort attributions for sport and school failures. This profile was labeled "responsible" to describe the individual taking personal responsibility for both successes and failures.

The most common profile was learned helplessness, mostly characterized by weak effort attributions for sport success and relatively weak effort attributions for school success. At the beginning of upper secondary sport school, this profile was typical of about 30% of the student-athletes. Since the admission process for upper secondary sport schools in Finland is competitive, and athletic and academic demands increase after athletes enter secondary education and thus require more effort from students to succeed, it is somewhat concerning that nearly a third of student-athletes did not believe that their own efforts contributed to their school or sport achievement. One possible explanation is that when entering upper secondary sport school, many talented athletes may start to realize that effort alone is not enough to succeed, because they are now in an environment in which all student-athletes devote a lot of time and effort to sport. However, at the beginning of upper secondary school, almost 25% of the student-athletes demonstrated the athletic self-serving attributional style, characterized by strong effort and ability attributions for sport success but weak effort and ability attributions for sport failures. This finding aligns well with previous

studies showing that athletes, especially those who prioritize sport over school, often have a domain-specific self-serving bias (Allen et al., 2020; Mezulis et al., 2004). The results showed that nearly 25% of the student-athletes had a responsible profile characterized by strongly attributing successes and failures in sports and failures in school to their ability and effort. The existence of a high personal responsibility group in which students take credit for their successes and hold themselves responsible for failures has previously been reported (Houston, 2016). Finally, almost 7% of the student-athletes demonstrated a depressive attributional style characterized by low effort attributions for sport success and relatively low effort attributions for school success, combined with low-ability attributions for school success, at the beginning of upper secondary school.

Generally, while the attributions student-athletes made were consistent across the sport and school domains, they made stronger ability and effort attributions for sport success than for school success, especially in the athletic self-serving group. This can be explained by the highly competitive selection process adopted by sport upper secondary schools, which require athletes to perform at a very high level and thus lead to more conscious evaluations of one's own sport performances. The results also showed that student-athletes' attributional profiles were stable across the first year of upper secondary school: the profile typical of a given student-athlete at the beginning of the first year was likely to be the same when the year ended (see also Aunola et al., 2018; Enlund et al., 2015). This finding, along with the fact that attributions were found to be relatively consistent across domains, both support the idea that for many adolescents, attributional style may be a trait-like characteristic that has stabilized before the first year of upper secondary school and does not change, even under intensified academic and athletic circumstances. This means that it is especially important for key actors like coaches and teachers who work with young athletes to focus on preventing the development of a maladaptive attributional style.

When examining whether student-athletes' gender was related to their attributional profiles, the results only indicated a nonsignificant overall trend with a statistically significant unique effect in the predicted direction: female athletes more often than males demonstrated a responsible attributional style characterized by taking personal responsibility for both successes and failures (Houston, 2016). Since the results were indicative, future studies are needed to clarify the extent to which gender shapes the ways athletes explain their successes and failures. Adding understanding on these issues would be important when aiming to efficiently support the development of an adaptive attributional profile, especially among boys and team sport athletes.

### **5.3.2 The role of student-athletes' motivation in their dual career success**

Study 4 examined how causal attribution profiles relate to student-athletes' sport and school achievement and sport dropouts at the end of the third year of sport upper secondary school. As the results concerning gender differences were found

to be marginal, it can be suggested that motivational profiles predict DC success in Finnish sport upper secondary schools for both females and males in a similar way. First, the results showed that athletes' attributional styles predicted sport dropout: student-athletes with a responsible attributional style were less likely to drop out of sports than athletes in other groups. This may be because athletes with this profile are typically achievement-oriented and willing to learn despite failures, leading to clear improvements that in turn increase their enjoyment of an activity and may prevent dropout (Duda & White, 1992). This finding also provides further support to the assumption that demonstrating a mastery-oriented motivation is beneficial in terms of athletes' successful DC construction, as was also shown in Study 3.

Second, student-athletes' attributional profiles were not associated with the level of sport competition in the third upper secondary year after controlling for earlier levels of sport competition, gender, and type of sport. While this result may be somewhat surprising, bearing in mind the positive results of earlier attributional retraining studies (Coffee & Rees, 2011; Rasclé et al., 2015), it may be explained by unequally distributed dropout rates across profiles. That is, it is possible that the dropout cases were athletes who did not achieve much, increasing the overall achievement levels of all groups but the responsible group, which had almost no dropout cases. Moreover, student-athletes' attributional profiles were found to predict their school achievement: athletes with a responsible attributional style during the first year had higher grade point averages than the other groups at the end of the third year of upper secondary school (Houston, 2016). This was true even after controlling for earlier school achievement, gender, and type of sport. This suggests that the attributions individuals make to account for their successes and failures play an important role in guiding their future motivation, effort, and achievement.

Overall, while the self-serving attributional style is generally considered the most adaptive one (e.g., Allen et al., 2020; Mezulis et al., 2004), the results from Study 4 show that from a longitudinal perspective, it may be most beneficial to attribute both successes and failures to one's own effort; that is, to adopt a responsible attributional style. Adopting that style allows individuals to take credit for successful performance outcomes and be motivated to maintain that behavior while also learning from and effectively changing behavior after a negative experience (Hamm et al., 2020). This means that to work effectively, DCDEs should help their student-athletes to internalize a responsible attributional style.

## **5.4 Practical implications**

The present thesis has several practical implications for those interested in supporting young female athletes' development and success in DCDEs. First, the results of the thesis show that for DCDEs to work effectively, there is a need to consider environment success factors from a more contextualized and culturally

informed perspective (Bjørndal et al., 2017; Stambulova & Ryba, 2014). Indeed, by operating under the pretense of the “universal athlete,” the DC-EFS model excludes female athletes’ career development and continues to replicate the gender hierarchies that position male athletes and their careers as the desired norm and practice (de Haan & Knoppers, 2020; Krane, 2001; Norman, 2016a; Ryba, 2022). Indeed, the results of the thesis highlight the need to abandon the traditional view of culture that considers it to be a closed, geographically situated system and to adopt instead a more subjectivist and interpretivist approach to culture that is capable of attending to differences, inequity, and unnoticed discourses (McDougall et al., 2020). While the thesis specifically shows that the coach-athlete interactions and gender discourses shaping those interactions create the culture (Geertz, 1973), it is important to acknowledge that coaches are not solely responsible for either creating or changing the organizational culture and the dominant understanding of gender in sport. Rather, their understanding of gender is constructed within the dominant discursive field of elite sport, which is reinforced, often tacitly, in many societal structures, coaching education materials (Edwards, 2007), and policy documents. Indeed, the results of the thesis support the argument that current policies concerning gender equality in DCs are superficial and ineffectively translated into practice (see also Sotiriadou & de Haan, 2019). Therefore, to actively change the status quo, sport governing bodies and national decision makers such as national Olympic committees and those responsible for organizing coach education should commit to practices to increase gender *equity* in particular. This is especially important in Finland, where discussions of gender focus on increasing gender equality and pay less attention to gender equity. Indeed, it has been shown that converting implicit thinking into explicit policy directions and doing has the power to change the discourses concerning women’s leadership in sport governance from gender equality to gender equity, where equity means the provision of fairness and justice in the distribution of responsibilities, opportunities, and benefits available to women and men and the processes and strategies that are used to achieve gender equality (Norman, 2016a; Sotiriadou & de Haan, 2019). One mechanism to increase the number of women in leadership roles is the use of gender quotas (Norman, 2016a; Norman & Simpson, 2022; Sotiriadou & de Haan, 2019). Similarly, through their direction-setting functions and policy formation, sport organizations should adopt a whole-sport approach to gender equity, which means that equity changes should be diffused through all aspects of sport, from participation to events, coaching, competitions, and prize money (see also Lehtonen et al., 2021). Structural changes in the Finnish sporting system are also needed, such as providing more DCDEs for women and allocating more financial support to women athletes in order to effectively support female athletes’ professional careers.

When addressing coaching in particular, it is important to note that the leading coaching education programs in Finland currently do not include courses addressing gender in sport coaching (University of Jyväskylä, 2022). However, the results of the thesis show that coaches play an active role in reproducing the



power relations and gender stereotypes of the broader society, making it essential for coaches to become aware of the problematic effects of these dominant discourses and to work on changing them (Norman, 2016b). Indeed, it has been emphasized that coaches do have agency to choose the discourses with which they engage (McGannon & Busanich, 2010; Weedon, 1997), meaning that it is important for coaches to critically reflect on how their coaching practices are formed, what information is privileged, and where the dominant understanding of coaching originates (Denison & Avner, 2011). To facilitate this critical reflection, coaches could benefit from coaching education that facilitates discursive interventions that broaden their discursive resources regarding what holistic coaching of young athletes means (Bjørndal & Ronglan, 2018; Carless & Douglas, 2013; Finnish National Agency for Education, 2021). Practically speaking, it is important that coaching education programs promote language that challenges taken-for-granted gendered athletic hierarchies to alleviate some of the cultural pressures that female athletes experience. This means, for example, eliminating language that constantly compares women with men. Rather, coaches should be encouraged to use language that normalizes female participation in sport and challenges the unquestioned and limiting beliefs of what female bodies are – or are not – capable of doing. This is especially important for female coaches, who act as role models for younger generations of female athletes (Ryba et al., 2021). Male coaches, in turn, could be encouraged to reflect on how males' privileged position in sport does not reflect some natural or universal "truth," but is instead constructed in the dominant discourses and can thus be changed.

Second, based on the results of the thesis, one way for coaches to incorporate a genuine DC agenda into their coaching practices and to contribute to DCDE effectiveness would be to use an affective coaching style that promotes learning and holistic development. Coaches could be educated about what affective coaching entails, such as what kinds of language and interaction support positive relations with student-athletes and how sporting environments can be structured so as to promote the development of mastery-oriented motivation (Appleton & Duda, 2016; Duda, 2013; N. Smith et al., 2016). This idea is in line with the results of the thesis showing that athletes' responsible attributional style predicted their future sport and school achievement and DC continuation (i.e., DC success): to support student-athletes' successful DC construction, it is important that coaches and other significant others help them develop responsible attributional styles focusing on learning and personal improvement across domains during the sport upper secondary school years (Hamm et al., 2020; Parker et al., 2016). This means that the role of effort should be promoted above ability when accounting for successful and less successful performance outcomes in different sport and educational settings and interactions among teachers and coaches.

Finally, it is hoped that the results of the thesis could empower female coaches and used to promote their careers in elite sports, with the goal of increasing women's representation in coaching positions (European Commission, 2014). Indeed, a majority of the head coach positions around the world continue

to be occupied by males, and female coaches continue to experience structural and relational discrimination such as lower salaries, a lack of organizational support, and unequal ideas of women's coaching competence (Krane & Barber, 2005; Norman, 2016a). However, the results of the thesis show that the dominant beliefs concerning women's inability to operate in that field are not supported by empirical evidence and that it is thus paramount to actively work toward changing them (Norman, 2016a; Norman & Simpson, 2022).

## **5.5 Limitations and recommendations for future research**

Based on the findings of the thesis, the following recommendations for future research are provided; some of these avenues are opened up by the limitations of the thesis. First, it is important to recognize that the thesis was conducted in Finland, meaning that the findings concerning coaches' discursive constructions of gender and education and the interviewed athletes' experiences of their coaches' approaches to education are partial and positioned interpretations (McGannon & Busanich, 2010; Weedon, 1997). Similarly, the interpretations of the quantitative data are situated within the same cultural context; they are also informed by a feminist poststructuralist perspective (Kavoura et al., 2018; Weedon, 1997), meaning that particular attention was paid to questions concerning ethical considerations and processes that create or maintain gender inequality (Tibbetts, 2019). In alignment with this theoretical viewpoint, the importance of the subjective and culturally situated nature of the findings is acknowledged, as is the fact that other researchers with different cultural backgrounds could understand and interpret the data presented in the thesis differently. Therefore, future studies addressing coaches' discursive constructions on gender in different cultural settings are highly encouraged. Moreover, to gain a more comprehensive understanding of the discursive field of elite sport in Finland and how these ideas are embedded in coaches' subjective experiences, it would be useful for future studies to combine multiple data sources (e.g., analysis of national policy documents combined with coach interviews and coaching education textbooks). It should also be noted that as a majority of the interviewed coaches in the thesis were relatively highly educated and experienced male coaches, there is a need for future studies to continue to critically examine the experiences, beliefs, and discursive practices of coaches with different educational backgrounds, years and types of coaching experience, and, especially, genders. Similarly, a majority of the interviewed student-athletes were males, suggesting that the discursive landscape presented in the thesis is from a male perspective that represents dominant masculinity; future studies should aim to better address and understand the lived experiences of female coaches and student-athletes (Kavoura & Ryba, 2020; Kavoura et al., 2018; Krane & Barber, 2005; Krane et al., 2004; Norman & Simpson, 2022).

In Study 3, only one measurement point was used to assess student-athletes' perceptions of coaching styles: at the end of the third year of sport upper

secondary school. Therefore, it was not possible to examine the possible changes in coaching styles over time; the same is true of the developmental dynamics of student-athletes' motivational orientations in relation to coaching styles. Coaches may, for example, change how they coach athletes as a reflection of their perceptions of those individuals' motivation or achievement (Appleton & Duda, 2016; N. Smith et al., 2016). Similarly, in Study 3, only student-athletes' perceptions of coaching styles were examined, meaning that the phenomenon could be only partially understood. As athletes' and coaches' interpretations of what constitutes affective coaching behaviors may differ, future studies should investigate coaching styles in greater depth by including reports from coaches as well (N. Smith et al., 2016).

Third, Study 4 covered only three years of sport upper secondary school, meaning that it was not possible to examine stability and change or the role of attributional profiles in sport and school achievement and dropouts over a longer period of time, such as in tertiary education and/or working life. In future research, it would be valuable to examine the extent to which student-athletes' attributional profiles predict long-term achievement outcomes among those who continue on to university or become professional athletes (Aunola et al., 2018). Similarly, it was not possible in Study 4 to examine the associations between student-athletes' attributional profiles and their school dropout rates due to the limited number of school dropouts. Moreover, the Cronbach's alpha reliabilities for the success-ability (T1: 0.56; T2: 0.59) and failure-ability (T1: 0.60; T2: 0.60) scores in the academic domain were low. This may be related to the fact that in the academic domain, attributions were calculated across two school subjects (language and mathematics), whereas in the sport domain those questions concerned only sports. Earlier studies have shown that students sometimes make different attributions for language and mathematics that are related to differences in their self-concept in terms of ability (Clem et al., 2018). It is therefore left for future studies to assess attributions related to mathematics and literature separately. Additionally, the sample consisted of academically high-performing student-athletes from upper secondary sport schools, which is a rather elite subpopulation that is not representative of the age cohort. However, most attributional profiles are quite common among other populations as well, so it can be assumed that the findings are generalizable to at least some extent. To address this point, future studies should compare the findings of the thesis with the results found in other kinds of DCDEs and types of schools (e.g., those on the vocational track) in order to obtain more insights into the phenomenon of interest. Finally, it is suggested that future studies should continue examining DCDEs from a critical perspective by looking at other types of discourses (e.g., race, ethnicity, and sexuality) and perhaps how they intersect with discourses about gender to gain a more holistic understanding of athlete career development (see also Book et al., in press). Critical realism could be one way to expand this line of enquiry, although more has to be done to develop critical realist theorizing and method in relation to gender (Hull, 2020).

## 5.6 Concluding remarks

This thesis extends the existing understanding of athletes' career development by deconstructing the DC-ESF model from a gender perspective and by subsequently integrating that perspective into current practices to ensure that women athletes are more effectively supported by coaches and support systems. The results of the thesis demonstrate the need for a more contextualized understanding of athletes' careers, and by mapping coach behavior through the lens of the DC-ESF model, it is possible to gain a better understanding of how coaches contribute to female athletes' career development and DC success. More specifically, the results of the thesis highlight that coaches construct the idea of sport as a male space in their discursive practices concerning gender and education and that these discursive practices increase female athletes' additional pressure and the superwoman expectations they encounter. Similarly, these gendered discourses contribute to the feminization ideas of a DC, which may also have critical implications in terms of male athletes' interest in pursuing their education (Ryba, 2022). The results of the thesis also highlight the importance of student-athletes' motivation in terms of their DC success and how environments should be structured to focus on learning instead of solely on athletic performance outcomes (see also Nikander, 2022). Finally, it is important for future studies to continue examining the performativity of gender in sport by taking into account genders other than male and female (Krane, 2001; Waldron, 2016).

## YHTEENVETO (SUMMARY)

### Naisurheilijoiden haavoittuvuus ja siihen vaikuttavat tekijät kaksoisuran rakentumisen viitekehyksessä

Tämän väitöskirjatutkimuksen tavoitteena oli jälleenrakentaa Kaksoisuraympäristöjen menestystekijät-malli (DC-ESF) (Henriksen ym., 2020) sukupuolen näkökulmasta, sekä integroida sukupuolinäkökulma tämänhetkisiin käytäntöihin jotta valmentajat ja tukijärjestelmät voivat jatkossa tukea naisurheilijoita entistä tehokkaammin. Tutkimuksen tavoitteena oli (1) selvittää, miten valmentajat jälleenrakentavat vallalla olevaa käsitystä urheilusta miehisenä tilana valmennuskäytännöissä sekä asenteissa naisurheilijoiden kaksoisuraa kohtaan, (2) miten valmentajien valmennustyylit vaikuttavat urheilijoiden kaksoisurien sukupuolittumiseen, sekä (3) eroavatko nais- ja miesurheilijoiden motivaatiot kaksoisuraa kohtaan toisistaan ja missä määrin motivaatio ennustaa kaksoisuralla menestymistä. Tieteenfilosofisesta näkökulmasta tutkimus sijoittui kriittisen realismin viitekehukseen, ja feminististä poststrukturalismia hyödynnettiin teoreettisena lähestymistapana tulosten tulkinnassa painottaen näin ympäristön ja yksilön vuorovaikutusta psykologisissa prosesseissa (Weedon, 1997).

Väitöstutkimus koostui neljästä eri osatutkimuksesta, ja siinä käytettiin sekä laadullisia että määrällisiä tutkimusmenetelmiä. Osatutkimukset 1, 3 ja 4 toteutettiin osana Voitto pitkällä aikavälillä (Ryba ym., 2016) tutkimushanketta, ja osatutkimus 2 pohjautui kirjoittajan pro gradu tutkimusta varten kerättyyn aineistoon. Osatutkimuksessa 1 haastateltiin maastohiihdon nuorten huippuvalmentajia (n = 10) siitä, miten valmentajien käsitykset urheilijoiden kokonaisvaltaisesta kehityksestä linkittyvät sukupuolesta kerrottuihin sosiokulttuurisiin diskursseihin. Osatutkimuksessa 2 haastateltiin opiskelija-urheilijoita (n = 17) heidän kaksoisurakokemuksistaan. Osatutkimuksessa 3 tarkasteltiin valmennustyilien yhteyttä urheilu- ja koulumotivaatioon ja sukupuolieroja näissä yhteyksissä. Aineisto kerättiin opiskelija-urheilijoilta (n = 248) motivaatio-orientaatiota ja valmennustyyliä koskevilla kyselylomakkeilla sekä lukion alussa että sen loppussa. Osatutkimuksessa 4 tarkasteltiin attribuutiotyilien yhteyttä kaksoisuramenestykseen. Aineisto kerättiin opiskelija-urheilijoilta (n = 391) kyselylomakkein lukion alussa, ensimmäisen vuoden lopussa, sekä kolmannen vuoden loppussa.

Tutkimustulokset osoittivat, että ammentaen monista eri diskursseista valmentajat puheellaan jälleenrakensivat ajatusta naisurheilijoista miesurheilijoita vähäisempinä, täten ruokkien naisiin kohdistuvia ”supernaiseuden odotuksia”. Tämä supernaiseuden ideaali heijastelee kansallista naisihannetta, jonka mukaan naisten tulee ”menestyä kaikessa” ja tasapainottaa kaikki kulttuuriset ja sosiaaliset heihin kohdistuvat vaatimukset (Kavoura & Ryba, 2020; Ryba ym., 2021). Ammentaessaan sukupuolierojen diskurssista valmentajat konstruivat naisurheilijat ”epätäydellisiksi” ja täten näkivät että heidän täytyi kompensoida tätä epätäydellisyyttä investoimalla moniin samanaikaisesti uriin. Kuten aiemmat tutkimukset ovat osoittaneet, naisurheilijoihin kohdistuvat paineet supernaiseuden

ideaalista rakentuvat patriarkaalisessa diskurssissa (Ryba ym., 2021) joten valmentajien ajatukset siitä, että naisurheilijoille kokonaisvaltainen kehittyminen on erityisen tärkeää vahvistaa patriarkaalista sukupuolijärjestystä. Tämän lisäksi valmentajat rakensivat heidän urheilijoidensa opiskelulle erilaisia merkityksiä riippuen urheilijan iästä. Ammentaessaan kaksoisuran ja urheilun suoritusdiskurseista valmentajat jälleenrakensivat ajatusta siitä, että urheilussa suoriutuminen ja menestyminen on kaksoisuraa tekevien urheilijoiden kohdalla tärkeintä (Carless & Douglas, 2013; McGannon ym., 2015). Nämä diskursiiviset käytännöt vahvistavat urheilussa vallalla olevaa käsitystä huippusuorituksen tärkeydestä muiden merkitysten ohi täten mahdollisesti vaarantaen nuorten urheilijoiden motivaation opiskelua kohtaan (Ronkainen ym., 2018). Tätä käsitystä vahvistivat myös nuorten opiskelija-urheilijoiden kokemukset siitä, kuinka valmentajat usein valmennustyössään keskittyivät kokonaisvaltaisen kehittymisen sijaan urheilusuorituksen parantamiseen, joka puolestaan heikensi urheilijoiden sitoutumista koulutustavoitteisiin (Duda, 2013). Aiemman tutkimuksen mukaan tämä lähestymistapa voi olla erityisen haitallinen nuorille naisurheilijoille, jotka kokevat enemmän kulttuurista painetta keskittyä moniin uriin samanaikaisesti ja saattavat vetäytyä urheilun parista, mikäli eivät enää pysty toteuttamaan ”super-naisen” ideaalia (Kavoura & Ryba, 2020; Ryba ym., 2021; Skrubbeltrang, 2019).

Määrälliset tutkimustulokset osoittivat, että valmentajien käyttämät valmennustyyli (lämmin valmennustyyli/ psykologisesti kontrolloiva tyyli) eivät olleet yhteydessä kaksoisurien sukupuolittumiseen: sekä nais- että miesurheilijat hyötyivät valmentajan lämpimästä ja kokonaisvaltaisen kehityksen huomioivasta valmennustyylistä koulumotivaationsa suhteen. Mielenkiintoisesti miesurheilijat hyötyivät valmentajan lämpimyydestä naisia enemmän myös urheilumotivaationsa suhteen, mikä on ristiriidassa aikaisempien tutkimustulosten kanssa (Amorose & Horn, 2000). Naisvalmentajien koettiin miehiä useammin olevan lämpimämpiä valmennustyyliään, joka tarkoittaa sitä, että heidän tapansa valmentaa voi mahdollisesti ottaa urheilijoiden kokonaisvaltaisen kehityksen tarpeet paremmin huomioon. Nämä tulokset osoittavat, että monet urheilussa vallitsevat stereotypit eivät empiirisen tutkimuksen valossa pidä paikkaansa, ja että on tärkeää pyrkiä haastamaan näitä kaikkia sukupuolia haittaavia ajattelu- ja toimintatapoja.

Tutkimustulokset osoittivat, että naisurheilijat olivat miesurheilijoita tehtäväsuuntautuneemmin motivoituneita urheilu- ja koulutavoitteitaan kohtaan lukiovuosien ajan. Tämä heijastelee myös laadullisessa tutkimuksessa saatuja tuloksia siitä, kuinka naisurheilijat ovat miehiä useammin sitoutuneita kaksoisuran tavoitteisiin, ja kuinka he kokevat kulttuurista ja sosiaalista painetta menestyä elämän eri osa-alueilla samanaikaisesti (Ekengren ym., 2018; Kavoura ym., 2018, Viljaranta ym., 2022). Nais- ja miesurheilijoiden attribuutiotypeissa ja näiden yhteydessä urheilu- ja koulusuorittamiseen sekä kaksoisuran lopettamiseen ei havaittu kuin viitteellisiä eroja: tulosten mukaan vastuullinen attribuutiotype liukion ensimmäisen vuoden lopulla ennusti parempaa koulumenestystä sekä urheilun jatkamista lukion lopussa (Houston, 2016). Tämä tulos osoittaa, että urheilijoiden kaksoisuralla menestymisen kannalta on tärkeää että ympäristö sekä

valmentajat tukevat urheilijoiden oppimiseen ja vastuunkantamiseen keskittävää motivaatiota sekä urheilussa että koulussa lukiovuosien läpi.

Kokonaisuudessaan väitöskirjatutkimuksen tulokset osoittavat, että lisätutkimukselle joka ottaa huomioon urheilijoiden kaksoisurat kontekstuaalisesta ja kulttuurisidonnaisesta näkökulmasta on tarvetta (Book, 2022; McDougall ym., 2020; Stambulova & Ryba, 2014). Kaksoisuran menestystekijät-mallin (Henriksen ym., 2020) operoidessa edelleen ”universaalin” urheilijan tasolla malli jatkaa naisurheilijoiden ja heidän kaksoisurakehityksensä marginalisaatiota jälleenrakentaen sukupuolihierarkioita ja positioiden miehet ja heidän urakehityksensä normiksi (de Haan & Knoppers, 2020; Norman, 2016a; Ryba, 2022). Näyttääkin siltä, että nykyinen kaksoisurapolitiikka sukupuolten väliseen tasa-arvoon liittyen on pinnallinen, eikä sitä ole tehokkaasti saatu siirrettyä käytäntöön (Sotiriadou & de Haan, 2019). Jotta naisurheilijoiden määrää ja heidän pysymistään urheilun parissa saadaan parannettua, on erityisen tärkeää kiinnittää huomiota heidän kokemaansa paineeseen suoriutua elämän eri osa-alueilla ja pyrkiä vähentämään tätä painetta (Kavoura & Ryba, 2020; Ryba ym., 2021). Jotta vallitsevaa asioiden tilaa sekä sukupuolten välistä tasa-arvoa urheilussa saadaan aktiivisesti edistettyä, on tärkeää että muutoksia tehdään niin rakenteellisesti kuin koulutuspoliittisesti: esimerkiksi naisurheilijoiden ammattilaismahdollisuuksia sekä valmentajien kouluttamista tasa-arvokysymyksiin tulisi aktiivisesti lisätä (Norman, 2016a). Tämän lisäksi myös urheilun johto- ja valmennustehtäviin tulisi valita lisää naisia.

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## ORIGINAL PAPERS

### I

# **“WOMEN EASILY FEEL THAT THEY HAVE LOST A YEAR IF THEY DON’T SKI FASTER”: FINNISH SKI COACHES’ DISCURSIVE CONSTRUCTIONS OF GENDERED DUAL CAREER PATHWAYS**

by

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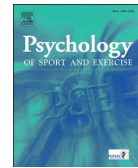
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## “Women easily feel that they have lost a year if they don’t ski faster”: Finnish ski coaches’ discursive constructions of gendered dual career pathways

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## ABSTRACT

**Objectives:** Earlier qualitative researchers studying athletes’ dual careers (DCs) have shown that sociocultural discourses on gender are ingrained in DC policies and practices, creating gender inequalities and hierarchies. In this study, we aimed to extend this body of research by examining how Finnish elite youth ski coaches discursively construct athletes’ education and gender in their talk and coaching practices. Similarly, we examined how coaches’ beliefs about athletes’ holistic development are interlinked with broader sociocultural discourses on gender.

**Design:** Qualitative study.

**Methods:** We conducted semi-structured interviews with 10 Finnish ski coaches (seven male, three female) aged 25–62 years ( $M = 38.5$ ), and then analyzed the data using reflexive thematic analysis, interpreted through a feminist poststructuralist lens.

**Findings:** Coaches’ discursive practices regarding education depended on their athletes’ ages. For athletes in secondary education, the coaches predominantly drew on DC discourses that emphasized the compatibility of sports and education, but for athletes transitioning to senior-level sports, they drew on dominant performance discourses, believing that athletes at the senior level should prioritize their sports. Moreover, coaches discursively constructed athletic development as especially important for female athletes, who were perceived as less capable of excelling in sports and therefore needing to invest in multiple careers.

**Conclusions:** By drawing on gender stereotypes and binary understandings of gender, the coaches discursively reproduced gender hierarchies and unequal power relations in sports. These gendered discourses influence athletes’ DC aspirations and the gendering of DC pathways.

Dual career (DC) discourses have gained traction in elite sport policy. DC pathways (i.e., combining elite sporting careers with education or work) aim to ensure that young athletes receive education or vocational training alongside their sporting careers, thereby improving their employability and adaptation to life after athletic retirement (European Commission, 2012). Studies on athletes’ DCs have identified multiple benefits of DCs, such as broader identity development, a balanced lifestyle, enhanced sport performance, and improved life satisfaction (for a review, see Stambulova & Wylleman, 2019).

Researchers investigating athletes’ careers have recently acknowledged that athletes’ relationships with their coaches play an important

role in athletes’ holistic development (Knight et al., 2018; Wylleman et al., 2013). Therefore, the EU guidelines on sport coaching highlight that coaches should promote athletes’ education and lifelong development at all developmental levels (European Commission, 2012; Wylleman et al., 2013). The research also suggests that coaches should aim to understand and consider athletes’ individual needs and sociocultural circumstances, including their genders (European Commission, 2014). Despite these policy recommendations, there are noted tensions between coaches’ reported views on athletes’ holistic development and their coaching practices. For example, youth coaches reported that they supported their athletes’ education but could not recall specific

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examples of doing this in their practices (Ronkainen et al., 2018), suggesting that coaches struggle to transform their beliefs into actions. Researchers have reported that elite-level coaches may be especially unsupportive of athletes' academic goals because of their belief that academic study distracts athletes from developing their sporting careers (Rothwell et al., 2020; Saarinen et al., 2020). Since performance discourses that celebrate and value a single-minded focus on sport are often privileged in coach education and knowledge formation, these dominant discourses are likely to powerfully shape how coaches construct their athletic coaching philosophies and practices (Carless & Douglas, 2013; Denison & Avner, 2011).

Scholars have argued that coaches' perspectives and coaching practices are also shaped by the discourses on gender and gender equality promoted by major sport organizations and coach education programs (De Haan & Knoppers, 2020; Norman, 2016a; Norman & Simpson, 2022). Specifically, Norman (2016b) found that while coaches have taken by coaches as objective "truths" that inform their thinking and coaching practices (Norman, 2016b). For example, De Haan and Knoppers (2020) examined the gender discourses on which elite rowing coaches drew to frame their athletes. Their work showed that coaches employ discourses that regard female athletes as more sensible, less competitive, and less capable of high-level performance than male athletes. Similarly, Edwards (2007) examined Japanese coaches' discursive practices regarding gender and found that female athletes are continually compared to male athletes, who are constructed as the norm. In Japanese coaches' talk, female athletes were constructed as physically and mentally inferior, emotionally needy, and fragile (Edwards, 2007). Indeed, several scholars have indicated that coaching women is framed as non-normative and problematic, requiring coaches to adapt their coaching style to their female athletes (de Haan & Knoppers, 2020; LaVoi et al., 2007). Moreover, researchers have revealed that the construction of the "ideal" athlete through masculinized discourses may be linked to structural inequalities, such as limited opportunities for women to develop professional athletic careers and demanding expectations for female athletes to invest heavily in their education (Ronkainen et al., 2021; Ryba et al., 2021). Therefore, we hold that it is important to address coaches' views and understandings of gender because they can reproduce (and/or challenge) gender stereotypes and inequalities in sports through their discursive practices. Although some scholars have addressed this topic (e.g., Edwards, 2007; Grahn, 2014), researchers haven't critically explored coaches' gendering of DC pathways. The purpose of this article is to enhance the understanding of how coaches' beliefs about athletes' holistic development are interlinked with broader sociocultural discourses on gender.

## 1. Theoretical considerations

We situated our research within a feminist poststructuralist framework (Butler, 1990, 1993; Foucault, 1972, 1978; Markula, 2018; Weedon, 1997) to emphasize the role of language and discourse in constructing ways of being, doing, and feeling. Drawing on this framework, we understand language as constructing knowledge and "reality" through discursive practices and formations (Markula, 2018; Weedon, 1997). We use the term "discourse" herein to refer to certain sets of knowledge and social practices that establish what is accepted as a reality and norm in a given sociocultural context. Cultural discourses generate power relations that are perpetuated through everyday practices, privileging certain identities and experiences and marginalizing others. Some discourses are more dominant or influential than others; therefore, they have more power to determine what is deemed true, natural, good, or scientific (Foucault, 1972). Moreover, feminist poststructuralist perspectives highlight that many discourses are gendered,

with concrete implications for shaping (and/or constraining) people's behavioral practices regarding gender norms (Markula, 2018; McGannon & Busanich, 2010; Weedon, 1997). Indeed, as Butler (1990, 1993) famously argued, the concepts of sex and gender are not only constructed through language and discourse, but also by repeatedly performing them daily through ways of walking, talking, acting, and dressing. The social construction of binary hierarchies shapes individuals' conscious and subconscious thoughts, emotions, and attitudes toward themselves and others (Weedon, 1997). Despite increasing acceptance of the fluidity of gender, repeated performances of women as feminine and men as masculine have led to taken-for-granted assumptions that gender is innate and stable (Butler, 1990).

Feminist and cultural sport psychology scholars have engaged with poststructuralist theory to explain how discourses on sex and gender influence sport practices and experiences, as well as the ways athletes view their bodies and themselves (e.g., Busanich & McGannon, 2010; Kavoura et al., 2015, 2018; McGannon & Spence, 2012). For example, scholars have argued that dominant discourses on gender are deeply ingrained in sporting cultures and practices, creating gender hierarchies and inequalities (de Haan & Knoppers, 2020; Edwards, 2007; Grahn, 2014; Kavoura & Ryba, 2020). Practices, identities, and experiences associated with masculinity are more valued, while feminine and LGBTIQ+ identities and experiences are often marginalized (Grahn, 2014; Kavoura et al., 2018). The assumed characteristics of the "ideal" athlete (competitiveness, toughness, aggressiveness, and endurance) continue to be associated with maleness, thereby constituting male athletes as the desired norm (Francis et al., 2017). Other attributes (sensitivity, modesty, warmth, and cooperation) are attributed to females and are considered incompatible with elite sports, positioning female athletes as inferior to male athletes (Felton & Jowett, 2013; Grahn, 2014; LaVoi et al., 2007). Such discourses on gender and sex are reinforced and reproduced repeatedly by sport institutions, coach education programs, and coaching practices, resulting in taken-for-granted assumptions and beliefs that are difficult to change (Grahn, 2014; LaVoi, 2007; Norman, 2016b).

Although few studies have examined athletes' DCs from a feminist poststructuralist perspective, except for Kavoura and Ryba's (2020) study exploring Finnish female judo athletes' discursive constructions of their future selves, their recent work indicates a need to critically examine athletes' (gendered) DC pathways because gendered discourses are ingrained in DC policies and practices, influencing athletes' motivations, career aspirations, decision-making, and well-being. For example, Ryba et al. (2021) explored gender meanings in the narrative construction of DC styles and how these meanings influenced the continuation/discontinuation of athletes' DC pathways. They found that male athletes are likely to invest exclusively in professional athletic careers, whereas female athletes are likely to construct DCs "within an interdependent configuration of sport and education themes" (Ryba et al., 2021, p. 2). Other researchers have observed that while female student-athletes' motivations to pursue sports may resemble those of males, they are likelier than males to invest in educational and DC goals and identities (Ekengren et al., 2019). Several sport scholars have also argued that female athletes are less likely than males to pursue professional sporting careers (Kavoura & Ryba, 2020), and they face a higher risk of withdrawing prematurely from sports (Skrubbeltrang, 2019). In Finland, researchers have shown that men benefit from the cultural privilege of being more relaxed about their career aspirations and focusing solely on their athletic careers, whereas women often experience cultural and societal pressures to excel in multiple roles (Kavoura & Ryba, 2020; Ronkainen et al., 2021; Ryba et al., 2021). Moreover, DC discourses are often mobilized at the intersection of sport and education, with each resting on stereotypical views of desirable gender identities (Ryba, 2018). Thus, recent scholarship has claimed that we may be witnessing a feminization of DC discourses linked to broader discussions about the feminization of education, resulting in more women enrolling in education programs (Brunila et al., 2011; Ryba, 2018; Ryba

et al., 2021). Similarly, the notion of the feminization of DC discourses has implications for male athletes' choices regarding their DCs (Ryba, 2022). Since coaching discourses and practices contribute to athletes' career meaning-making, feminist poststructuralist theory is particularly useful for explaining the gendered effects of discursive coaching practices.

## 2. Finnish context

In Finland, sports and education have traditionally been separated, and participation in sports has been organized within a volunteer-based club system. However, a few upper secondary sport schools (*urheilulukiot* in Finnish) were established in the 1990s to facilitate the construction of DC pathways in upper secondary education, and most talented youth athletes have pursued secondary education within these national talent development programs. At the time of the study, secondary education was voluntary in Finland. Upper secondary sport schools collaborate with sport academies and athletic clubs to provide daily training for athletes, offering the possibility of extending the three-year academic curriculum to 3.5 or 4 years, giving study credits for sport, and supporting DC planning (Ryba et al., 2016). Despite the structural agreements between sporting and educational stakeholders in upper secondary sport schools, no formal job description for coaches outlines their responsibilities regarding student-athletes' DCs (Finnish National Agency for Education, 2021). In the 2000s, Finland established a more extensive sport academy network to extend DC pathways to tertiary education (Lämsä, 2018). These sport academies focus on facilitating athletic training and support services for athletes, and they assist with DC planning in collaboration with tertiary educational institutes. Despite extensive development in the past decade, Finland is still among the few European countries with no sport-friendly universities to facilitate DC in higher education (Morris et al., 2021). Finland is a relatively egalitarian country in which extensive gender equality initiatives have been introduced in the past decade, both in educational and work settings, including sports (Brunila & Ylöstalo, 2015). However, structural inequalities continue to pervade the Finnish sporting system, limiting women's ability to develop professional sporting careers. For example, most DC development environments facilitating athletes' combined vocations and sports at the elite level target men (e.g., The Defence Force Programs and Player Union Programs; Morris et al., 2021), and despite the considerable growth of women's sports in 2017, only 1.6% of Finland's professional athletes were women (Lämsä, 2018). Similarly, Finnish sporting women receive less financial support from the Finnish Olympic Committee and the Ministry of Education and Culture (Turpeinen et al., 2012), and fewer than 25% of professional coaches in Finland are women (Finnish Coach Association, 2022). In this study, keeping this background in mind, we explored coaches' discursive practices when talking about DCs, especially regarding (1) the promotion of education and (2) gender.

## 3. Methods

### 3.1. Participants

The participants were seven male and three female Finnish cross-country ski coaches aged 25–62 years at the time of the interviews. The first author used her personal network to recruit participants. Whenever possible, we invited the highest-level junior coaches to participate in the study, and we expected the coaches to either work as coaches in upper secondary sport schools or as Finnish Ski Federation or junior national team coaches coaching the most talented and elite young skiers aged 15–25 years. On average, the coaches had 17 years of coaching experience and had been cross-country skiers before becoming coaches. All coaches had a minimum of five years' experience coaching DC athletes, and they all had degrees in relevant academic fields (sport pedagogy, sport coaching, exercise physiology, or physiotherapy).

**Table 1**  
Participants' background information by pseudonym.

Pseudonyms (Gender)	Age at the time of the interview	Years of coaching	Current coaching level (age group)	Level of education (ICED, 2011)
Elmeri (M)	62	40	Sport high school (17–21 years old)	Bachelor's degree (6)
Wilhelm (M)	52	30	Sport academy (14–21 years old)	Master's degree (7)
Julius (M)	32	5	Sport high school (15–21 years old)	Master's degree (7)
Juhani (M)	41	19	National team (18–29 years old)	Master's degree (7)
Helga (F)	34	12	Individual coach (20–25 years old)	Vocational degree (3)
Birgitta (F)	36	20	Individual coach (20–26 years old) NOC coaching developer	Bachelor's degree (6)
Pirkka (M)	47	24	Sport high school (14–23 years old)	Doctorate (8)
Waldermar (M)	28	10	Junior national team, national team (20–24 years old)	Master's degree (7)
Aatu (M)	26	10	Ski Federation, ski club (12–26 years old)	Bachelor's degree (6)
Adalmiina (F)	25	5	Ski Federation, ski club, (15–17 years old)	Bachelor's degree (6)

Table 1 details the participants' background information and pseudonyms.

### 3.2. Procedure

After obtaining an ethical approval from the relevant university for the study, we invited participants to participate in semi-structured interviews. We informed them that the interview was part of a longitudinal study on athletes' DCs (Ryba et al., 2016) and that the interviews would focus on their coaching philosophy and everyday practices. All participants provided their written informed consent to participate in the research. We started the interviews with a broad opening question asking the participants to share their stories of becoming coaches. Thereafter, we asked them to explain their views on athletes' holistic development and their goals as coaches. We interviewed six coaches face-to-face in various locations, such as a university campus or training site. Due to the difficulty in arranging some meetings, we interviewed four coaches via Skype. The interviews lasted between 20 and 60 min, and the first author digitally recorded them and transcribed them verbatim.

To explore how the coaches contextualized DC within a holistic development framework, we invited them to share their general views (e.g., "What are your views on DCs?" "Do you think a skier can succeed in both sport and school?") and provide examples of their daily practices ("What is your club's coaching recommendation for coaches regarding student-athletes?" "Could you share some examples of your daily practices? For example, how would you follow up on your skiers' academic success?"). To explore the participants' views and beliefs regarding gender, we asked them to reflect on how they coached their athletes, to consider whether gender played a role in shaping their coaching practices, and to share specific examples of their gendered coaching practices. Throughout the interviews, many of the participants spontaneously identified the gendered practices they had observed, and we explored these further. At the end of the interviews, the coaches were invited to ask questions and elaborate on topics they considered important that were not included in the interviews. The first author interviewed all coaches in Finnish.



### 3.3. Data analysis and representation

The first author transcribed the interviews verbatim and then reviewed them several times to create condensed summaries for the author team. To analyze the data, we employed Braun and Clarke's (2006, 2019) principles and phases of reflexive thematic analysis, which align well with feminist poststructuralism, to identify the discourses that coaches drew on when talking about athletes' DCs. Our analytic procedure included data-driven and theory-driven processes and involved "a dialectical movement between everyday meanings and theoretical explanations, acknowledging the creative process of interpretation when applying a theoretical framework to participants' experiences" (Ryba et al., 2012, p. 85). First, we semantically coded coaches' experiences with athletes' DCs and the explicit meanings coaches assigned to them. Second, we coded the data using a latent approach to inductively analyze implicit semantic meanings (Braun & Clarke, 2019). The latent focus of the analysis was informed by feminist poststructuralist theory, and we developed it by linking the semantic themes (i.e., female athletes needing to invest in multiple careers) with discourses concerning athletes' DCs and gender ideologies (e.g., the Finnish "superwoman" ideal). Third, we organized the codes into theoretically relevant themes. In the fourth and fifth phases, we developed the themes further by actively engaging with feminist poststructuralist theory to interpret and theorize our findings. We combined these phases because the analysis required us to move back and forth between them, linking the content of the interview data to epistemological assumptions and our theoretically driven interpretations. We conceptualized the final themes in our study as patterns of shared meaning united by a core concept (Braun & Clarke, 2019). In the sixth and final phases, we wrote up the analysis, as partly formulated during the earlier phases of the research. Our interpretation of coaches' experiential accounts involved contextually situated meaning and meaning-making processes that were enmeshed with researcher subjectivity in knowledge construction. Throughout the analysis, the first author provided her initial interpretations, while the other authors served as friendly "devil's advocates" to refine her analysis (Smith & McGannon, 2018). To ensure the quality of our research, the first author critically reflected on her own position as a Finnish woman and sport professional with a background that combined skiing with higher education as a student-athlete.

## 4. Findings and discussion

We present the results of our thematic analysis under two main themes:

(1) *the fluid positioning of education*, and (2) *holistic development is important for female athletes*. The first main theme contained two supporting subthemes, and the second main theme contained three supporting subthemes. Below, we outline the main themes and discuss each subtheme according to the discourses we identified as shaping particular meanings within it.

### 4.1. Fluid positioning of education

The first theme that we constructed in the analysis encompassed two coexisting meanings for athletes' education. These layered meanings depended on two subthemes feeding into the fluid positioning of education: (1) *secondary education is important*, and (2) *sport is the priority at the senior level*. The subthemes showed that the coaches constructed contradictory meanings in different discourses depending on their athletes' ages. These meanings also had different implications for coaching practices. Drawing on DC and performance discourses, the coaches constituted high performance as the most central aspect of their athletes' holistic development by showing that education either had an instrumental role in supporting athletes' development or that education should be entirely neglected to succeed as an athlete (Carless & Douglas, 2013; McGannon et al., 2015; Ryba et al., 2021).

#### 4.1.1. Secondary education is important

As found in previous research (e.g., Ronkainen et al., 2018), in our study, all the interviewed ski coaches drew on emerging DC discourses (i.e., discourses that promote the compatibility of sports and education) when talking about their school-age skiers. For example, a high school coach, Elmeri (M), said, "It is important that athletes take good care of their studies in secondary education." Coaches' talk about the compatibility of sports and education reflected the national cultural landscape, with its long-standing history of structural agreements between sporting and upper secondary institutions facilitated by the Finnish Ministry of Education and Culture (Morris et al., 2021; Nikander et al., 2021). However, while drawing on DC discourses to justify young athletes' education, coaches highlighted their instrumental role in supporting athletic development or providing something to fall back on if athletes failed in their sports (see also Nikander et al., 2022; Ronkainen et al., 2018; Ryba, 2022; Saarinen et al., 2020). This idea is illustrated by a quote from junior national team coach Juhani (M):

Combining sport and education is central here in sport high schools, and we try to make it work as well as possible... Athletes who really have a chance to reach the elite level one day, for whom developing an athletic career is a priority, need to have a high school diploma. It's important to make sure that their studies proceed nicely... to support athletic development. When their studies proceed nicely, so does the sport (usually). If athletes face problems in their studies, it negatively influences sport performance, as it causes athletes stress.

Indeed, DC discourses hold that education is a good backup plan for those who cannot pursue professional athletic careers or who need another profession when their athletic careers end (Ronkainen et al., 2018). As Birgitta (F, an individual coach) said, "You never know what will happen in life. You may get injured in sport, or whatever, so athletes should go to high school." Similarly, Julius (M, high school coach) noted:

I think that having an education is vital. Even if you become an elite athlete, it is not possible to live only with that for the rest of your life. In cross-country skiing, top athletes typically terminate their careers in their late thirties at the latest, so you need to have something else in your life once your athletic career is over. Completing high school studies opens up the possibility of continuing studies after athletic retirement.

Since everyday discourses (i.e., the discourses that provide meanings to constitute our everyday practices) limit understanding and, therefore, sport coaching practices (McGannon & Busanish, 2010), the interviewed coaches were unable to provide practical examples of how their DC beliefs shaped their coaching of school-age skiers. This indicates that the current discussions regarding education in dominant DC discourses and/or a lack of engagement in educational discourses that intrinsically value education, regardless of whether sports become professional pathways for athletes, limit coaches' opportunities to transform their DC beliefs into coaching practices (Ronkainen et al., 2018; Saarinen et al., 2020). Instead, coaches ultimately reproduce the cultural practices, like focusing on high performance and centralizing winning-related concerns that prioritize sports over education. This has a potential to thwart young athletes' engagement with education (Ronkainen et al., 2018; Saarinen et al., 2020).

#### 4.1.2. Sport is the priority at the senior level

As the main theme showed, the Finnish ski coaches constructed contradictory meanings in different discourses, depending on their athletes' ages. In line with earlier studies (Ronkainen et al., 2018; Saarinen et al., 2020), coaches predominantly drew on the dominant performance discourse in such talk to give meaning to athletes' education when transitioning to senior-level sports. The dominant performance discourse prioritizes high performance and winning over other values and is often privileged in the elite sporting world, typically

overshadowing the Finnish sporting culture (Ronkainen et al., 2016). This discourse suggests that “winning is everything,” meaning that performance-related concerns infuse all areas of life, while other areas, such as education and personal relationships, are diminished or sidelined (Carless & Douglas, 2013). To understand this discursive emphasis, it is important to note that Finnish cross-country skiers typically reach professional status before the age of 25, suggesting that the early years of senior-level sports are critical for athletic development (Finnish Ski Federation, 2022). Elmeri (M, high school coach) drew on the performance discourse to explain why he believed that sport and education were incompatible at the senior level: “When you become a professional skier and join a national team, especially if you are successful, there is no time to study.” Indeed, the performance discourse holds that the only way to achieve success in elite sports is to centralize sport performance in one’s life, even if this means neglecting other areas of life, such as education (Carless & Douglas, 2013; Ryba et al., 2021). Similarly, the performance discourse suggests that being an elite athlete is achievable only through sacrifice, and that it may be impossible to do anything other than sports (McGannon et al., 2015). For example, Birgitta (F, individual coach) stated:

Combining sport with school is a challenge for my athlete. We often discuss whether the sport should be a priority at the moment. I don’t think we can really make any compromises here, and I have tried to encourage full investment in the sport. When athletic goals and ambitions are high, if studying does not help in reaching them, the combination just doesn’t work out. I have tried to help my athletes make choices, and I have told them that they should focus on sports. I give the same message to all my athletes... that there is plenty of time in life to work; there is no rush to get a university degree.

As poststructuralist scholars have argued (e.g., McGannon & Busanich, 2010), language and discourse shape the ways people think and behave, and in this case, the dominant discourse on sport performance shapes coaches’ perspectives and coaching practices. For example, Wilhelm (M, junior national team coach) said:

As a coach, I need to support my athletes’ decisions. If they want to study, then they do that. However,... I don’t see university studies as a positive influence on sports. That’s why I don’t try to convince my athletes to study... I think it’s quite clear that if they choose to study, they cannot train optimally. It is okay for me if that is something the athletes want to do, but I want to make sure that they really understand what such a decision means. In that case, athletes need to accept that they must train less than others, and we can only wait to see whether that amount of training is enough.

Earlier studies have shown that when the structures facilitating the systemic integration of high-performance sport and higher education are lacking, as in Finland, athletes who invest in sports and education are at risk of lowering their athletic aspirations, while those who invest in sports (i.e., aligning themselves with the performance discourse) may experience increased tensions and discontinue education (Skrubbeltrang, 2019). Therefore, the risk is that coaches who emphasize exclusive high performance and values at the higher education level may eventually cause athletes to drop out of education and sports. Similarly, by drawing on the performance discourse, coaches reproduce the cultural landscape that privileges high performance over other values and meanings in sport, constructing it as a natural part of doing athletics with well-recognized problematic effects for athletes (Douglas & Carless, 2009; McGannon et al., 2015; Saarinen et al., 2020).

#### 4.2. Holistic development is important for female athletes

The second main theme we constructed in the analysis encompassed layered meanings regarding the importance of holistic development for female athletes. These layered meanings depended on three subthemes feeding into the idea that holistic development is important for female

athletes: (1) *female athletes are less capable of doing sports*, (2) *female athletes need to invest in multiple careers*, and (3) *coaching female athletes is challenging*. This main theme encapsulated multiple meanings, showing that coaches constructed female athletes as “less than” male athletes, thereby feeding into the “superwoman” expectations of female athletes. The superwoman concept refers to the national ideals of womanhood according to which women are expected to “succeed at everything” and balance the societal and cultural demands they encounter (Kavoura & Ryba, 2020; Ryba et al., 2021). By drawing on discourses about gender differences, coaches constituted female athletes as incomplete and needing to compensate for being “less than males” by investing in multiple careers. As previously shown, female student-athletes’ desire to meet the superwoman ideal is constructed within a patriarchal discourse (Ryba et al., 2021) and, therefore, we argue that the implication that holistic development is especially important for female athletes reinforces a patriarchal gender order.

##### 4.2.1. Female athletes are less capable of doing sports

Aligned with earlier studies (e.g., de Haan & Knoppers, 2020; Edwards, 2007), the first subtheme demonstrated that coaches in the present study drew on the discourse on female biological inferiority (Kavoura et al., 2015, 2018) to explain why holistic development was specifically important for female athletes. This discourse constructs female athletes as less capable of doing sports than males by suggesting that their bodies are fragile and incapable of high-intensity training due to their reproductive nature (McGannon & Spence, 2012). Similarly, it assigns several (undesirable) characteristics to women, such as softness, passivity, fragility, pain intolerance, and less capacity to manage the physical and mental demands of elite sports (Felton & Jowett, 2013; Grahn, 2014; LaVoi et al., 2007). For example, Julius (M, high school coach) said:

In our high school, girls and boys train together and follow the same training plan. You need to monitor the training load for girls more carefully... [because] they easily become perfectionists. They give 100% in school, and [because] they usually haven’t been coached by anyone at home... it seems that they have an urge to give their best to coaches all the time. Girls’ social relationships also seem to stress them. The internal competition here is high, and it is even higher for girls than for boys. All of this causes stress, and especially for girls, it is important to monitor and control the entire workload so that they can react faster. Many of the athletes do not admit that they are tired; this is the biggest challenge here—not so much with the boys, though, as most of them have trained way more... than girls. Boys are more prepared to train, and... their bodies develop in such a way that they don’t have to pay for mistakes in the same way; the levels of testosterone and anabolic hormones are so high they recover, no matter what they do.

Along similar lines, Elmeri (M, high school coach) stated:

When we talk about the physical differences, girls overtrain more easily than boys, and this is mostly because girls’ levels of testosterone are so much lower... so girls overtrain way more easily... They also have periods and such and that influences [girls’ ability to recover] too... Girls cannot do as much strength training as boys.

These sets of knowledge appear scientific, and because they are often included in coaching education textbooks (Grahn, 2014; LaVoi et al., 2007), coaches may accept them as objective truths and draw on them in their coaching practices or when talking about their female athletes. In doing so, coaches reproduce the idea that female bodies are fragile and flawed (McGannon & Spence, 2012) and thereby reconstruct the associated power relations and gender hierarchies in sport.

##### 4.2.2. Female athletes need to invest in multiple careers

Our analysis showed that coaches drew on discourses about gender differences, and, in doing so, reinforced “superwoman” expectations of

female athletes in relation to multiple careers (Ekengren et al., 2019; Kavoura & Ryba, 2020; Ronkainen et al., 2016; Skrubbeltrang, 2019). For instance, Elmeri (M, high school coach) noted that girls experienced greater societal and cultural expectations to invest in DCs, whereas boys could be more relaxed about their career aspirations:

Completing your high school studies successfully is a phase to begin with. Thereafter, you can sign up to an educational institute to make sure that you have a Plan B if the athletic career does not proceed as well as you hoped. Here, we see a difference between girls and boys: it doesn't seem to bother boys, but it does bother girls emotionally if they don't study or do anything else besides their sports. Relatives more often ask girls what else they do besides sports, and it is more challenging for them to say, "I don't do anything else." For boys and men, it's easier to say, "I am a professional athlete."

Kavoura and Ryba (2020) argued that Finnish female athletes are subjected to national ideals of womanhood that idealize the position of "superwoman" (i.e., a strong woman who is expected to "succeed at everything" and live an independent life without complaining about the societal and patriarchal pressures she experiences; see also Kavoura et al., 2018; Ronkainen et al., 2016, 2021; Ryba et al., 2021). Nevertheless, when young women are expected to live up to this ideal, they experience increased pressure to keep up with all the sporting and societal demands they encounter. Indeed, the coaches explained that women are perfectionists for whom achieving success means that the year has been used efficiently:

Both men and women are perfectionists in terms of achievement, but... when you give feedback after training about what went well and what could be improved, women are not as good at analyzing the feedback, going through it, and thinking, "Alright. Next time, I'll do better." They easily get stuck thinking about the things that didn't go well; they can't seem to... move on. All of this takes a lot of time. Another thing is that it is easier for men to decide that they want to be high-performing athletes, whereas women may... be more worried that they won't be able to ski faster next year; they may get the feeling that... they have lost a year and should have done something else, such as study or work (Waldemar, M, junior national team coach).

Birgitta (F, individual coach) explained that girls want to achieve good results in sports and education:

What I have sensed from the young athletes is that it is the end of the world if they get 8 out of 10 for an exam... Perhaps here we see a difference between boys and girls: girls... try to reach perfection. I have tried to teach them to be realistic, and that you don't have to be perfect in everything.

The coaches further claimed that girls generally invest more in their education:

Girls study at training camps more often than boys. Girls have homework clubs, and they try to follow up on what's going on at school. Boys just seem to forget the schoolbooks. I don't know if they try to catch up with the schoolwork afterwards, but [unlike girls] they don't... have homework clubs during their breaks (Aatu, M, Ski Federation coach).

While the superwoman ideal may work well to support women's athletic and academic excellence, providing an empowering discourse for women who are expected to achieve equality and economic independence through education, it is also linked to patriarchal discourses that reinforce the gender order, positioning women in "a balanced totality" of needing to handle multiple roles perfectly, such as being excellent mothers, making their own living, and being active citizens (Ryba et al., 2021). The pressure associated with this ideal makes female athletes more vulnerable, since it carries multiple risk factors for psychosocial distress, such as depression and anxiety (Kavoura & Ryba,

2020).

Moreover, the Finnish superwoman ideal is linked to national DC discourses in Finland that endorse individual responsibility and an "up to me" attitude without recognizing the cultural barriers created by gender hierarchies (Kavoura & Ryba, 2020; Ryba et al., 2021). Indeed, it seemed that while the coaches, to some degree, recognized that female athletes had to deal with inequality and faced more demanding DCs, they were incapable of linking gender hierarchies to these experiences:

With women, you need to talk a lot and try to convince them to enjoy the things they are doing right now instead of focusing on doing things to develop [as an athlete]... [to] understand this as a stage of life during which, even if you don't become a professional athlete, you gain many different experiences from training and traveling; this really prepares you for everything. Women are not as strong at valuing this process or valuing the things they are doing right now; rather, they want to see results (Waldemar, M, junior national team coach).

Coaches drew on discourses about gender differences and/or female biological inferiority (i.e., female athletes have different emotional, psychological, and physical dispositions from male athletes, are less likely to succeed in sports, and therefore need to invest in multiple careers). This kind of talk feeds into the superwoman ideal that, while it can be seen as empowering, continues to be linked to a patriarchal gender order (i.e., men do not have to do as much to be valued, succeed, gain respect, and access resources) (McGannon & Busanich, 2010; Ryba et al., 2021).

#### 4.2.3. Coaching female athletes is challenging

In line with previous studies (de Haan & Knoppers, 2020; LaVoi et al., 2007), the coaches' stories showed that they constructed a holistic perspective on athletes' development as particularly important for female athletes by drawing on discourses about gender differences, highlighting that female athletes differ from male athletes and are therefore less capable athletes. These discourses gain their meanings from stereotypical and binary understandings of gender, suggesting that male athletes are the desirable norm in sports, whereas female athletes are deviant and disrupt this norm (de Haan & Knoppers, 2020). These discourses compare male and female athletes and construct female athletes as physically and mentally inferior, fragile, and emotionally needy (Edwards, 2007; McGannon & Spence, 2012). For example, coaches in this study did not refer to female behavior in a positive manner, but rather made comparative comments that described characteristics desirable in men as lacking in women (see also Ronkainen et al., 2016). Elmeri (M, high school coach) claimed:

There is a big difference in how I coach girls and boys... You cannot coach girls by joking around. When they approach you with their worries and troubles... you need to listen to them and to understand. For boys... you can just say, "That's nonsense. Go and train." Girls may have worries that have nothing to do with sport or that are [only loosely] related to sport. Girls are more sensitive and more difficult, but... they are also more grateful and diligent. The psychological side of coaching girls is different. And one more difference is that girls are way more jealous than boys. Male athletes don't care if I spend more time with other athletes, whereas with girls... you need to be very careful that you spend as much time with all of them; they may easily get the feeling that "The coach only spends time with the other athlete and is no longer interested in me."

Earlier scholars have suggested that coaches may adopt normative ideas of male superiority in sports through their own cumulative coaching experience; since most of the coaches were male, it is likely that they had been coached in the past by male coaches who valued masculine characteristics (Denison & Avner, 2011). Also, coaching educational materials often emphasize practices associated with desirable athletic masculinity and male ways of doing and being, explaining

that women may differ from the (masculine) norm (LaVoi et al., 2007; Norman, 2016a). This default masculine norm was also evident in the coaches' comments, which emphasized how they altered or changed their coaching behavior when working with female athletes. These comments about altering coaching behavior revealed an implicit coaching norm that had to be changed when coaching female athletes. Earlier studies have shown that coaches often frame female athletes as mentally inferior to male athletes because they need to adapt their coaching practices for psychological reasons, such as women needing to talk more (see also Grahn, 2014):

Training plans are the same for both [sexes], but coaching women... is different... Group training, where we do the workout and then give... feedback, is pretty much the same for both, but when we work with individual athletes, coaching women takes more time and is more challenging (at least for me as a man)... I can't always think the same way; there may be misunderstandings, and... I just don't take all the small details into consideration as well as I should. It is more difficult and more challenging for me to coach women than men. And it is not about physical coaching but, rather, understanding the psychology and the different ways women think... Women want personal attention and coaches to treat them equally, whereas men like to stay in a group with other men and enjoy doing things together; they don't want that much personal attention (Juhani, M, junior national team coach).

In discourses about gender differences, male behavior is framed as the standard, and male athletes are seen as easy to work with. In contrast, working with female athletes is seen as problematic because they deviate from the standard in undesirable ways. Helga (F, individual coach) gave an example:

Compared to girls, coaching boys is usually more straightforward; they let you know quite soon if things aren't working. With girls, you need to sense their feelings and go with them. Girls may have moments when things aren't working, but they won't say it. You know, when you don't hear from them, something is wrong. Girls just stay quiet.

By drawing on discourses about gender differences, the coaches positioned their female athletes as problematic, disrupting the norm, not performing the role of elite athlete adequately, and therefore needing to focus on holistic development (Ryba, 2022). This construction of abnormality may undermine young female athletes' ability to see themselves as real athletes since they do not fit the standard formation of the athletic subject (Kavoura et al., 2015). The coaches' comments on this theme were based on generalizations that almost pathologized young women's behavior, potentially magnifying the problems that young female athletes encountered. By constructing female athletes as more challenging to coach, the coaches also reproduced the dominant power relations that position male athletes at the top of the gender hierarchy (Kavoura et al., 2018; Norman, 2016b; Ryba, 2022).

## 5. Conclusion

In this research, we explored how coaches' perspectives on athletes' holistic development connect with broader sociocultural discourses on gender. We thematically analyzed interview data from three female and seven male Finnish cross-country ski coaches, focusing on their discursive practices when talking about athletes' DCs, especially concerning the promotion of education and gender. Our work shows that coaches constructed contradictory meanings in different discourses on education, depending on their athletes' ages. For athletes in secondary education, the coaches predominantly drew on DC discourses that emphasized the compatibility of sports and education, yet assigning an instrumental role to education (Stambulova & Wylleman, 2019). For athletes transitioning to senior-level sports, in turn, coaches drew on a dominant performance discourse suggesting that athletes at the senior

level should prioritize their sports (Carless & Douglas, 2013). These views translated into coaching practices only for athletes who competed in senior-level sports, suggesting that the current promotion of education in DC discourses is an empty ideology, as long as it is rhetorical and not put into practice. Our work shows that coaches reproduced the cultural practices that prioritize sports over education and the cultural landscape, privileging high performance over other values and meanings in sport (McGannon et al., 2015; Saarinen et al., 2020). Moreover, the coaches discursively constructed a holistic perspective on athletic development as especially important for female athletes. The interviewed coaches constructed female athletes as less capable of excelling in sports by drawing on the discourse on female biological inferiority (Kavoura et al., 2015). Moreover, by drawing on the Finnish "superwoman" ideal, the coaches constructed female athletes as needing to invest in multiple careers and succeed in everything (Ryba et al., 2021). Finally, the coaches framed female athletes as challenging to coach by drawing on discourses about gender differences that position male athletes as the desired norm and female athletes as deviant and disrupting the norm. Importantly, our work shows that coaches' talk draws on the superwoman ideal, which can be seen as empowering but nevertheless continues to reinforce the patriarchal gender order in sports. These dominant power relations are likely to sustain a status quo and an environment that is hard to change as they may infuse all aspects of the environment to be slanted in the favor of males.

### 5.1. Limitations and future directions

We recognize that a limitation of our study is a partial and positioned interpretation of how Finnish ski coaches' beliefs about athletes' holistic development connect with broader sociocultural discourses about gender. Using a feminist poststructuralist framework, we acknowledge the subjective and culturally situated nature of our findings and recognize that other researchers may understand and interpret the data differently. Moreover, combining multiple data sources (e.g., combining coach interviews with an analysis of national policy documents and coaching education textbooks) could provide a better picture of how national discourses are embedded in coaches' subjective experiences. Also, bearing in mind that most of the coaches in our study were relatively highly educated and experienced male coaches, future studies should continue to critically examine the experiences, beliefs, and discursive practices of coaches with different educational backgrounds, coaching experiences, and genders.

### 5.2. Implications

Our findings have important implications for coaching education to help coaches develop more holistic, ethical, and inclusive coaching practices. It is important to understand that coaches can actively reproduce power relations and gender stereotypes; only when they become aware of the problematic effects of these dominant discourses can they work on changing them (Norman, 2016a). Bearing in mind that DC discourses are relatively new and that clear recommendations for holistic coaching practice are lacking, we encourage coaches to critically reflect on how their coaching practices are formed, what information they privilege, and where the dominant understanding of coaching comes from (Denison & Avner, 2011). To facilitate cultural change, coaches could benefit from interventions broadening their discursive resources for holistic coaching. Since language and discourse facilitate understanding of experiences (McGannon & Busanich, 2010), it is important that coaching education programs promote language that challenges taken-for-granted gendered athletic hierarchies to alleviate some of the cultural pressures that women and girls experience. This means, for example, eliminating language that constantly compares men and women. Rather, we should encourage coaches to use language that normalizes female participation in sports and challenges limiting beliefs about what their bodies can and cannot do. We believe that this is

especially important for female coaches, who act as role models for younger generations of female athletes (Ryba et al., 2021). Male coaches, in turn, should acknowledge that males' privileged position in sports does not reflect a natural or universal "truth" but rather how it is constructed in dominant discourses and power relations; therefore, it can be changed. Interestingly, while we included both male and female participants in the present study, we did not identify differences in their discursive practices, suggesting that without critical reflection, all individuals may ultimately reproduce dominant power relations in sport (Kavoura et al., 2018). Therefore, since the leading coach education programs in Finland do not currently include courses addressing gender equality in sport coaching (University of Jyväskylä, 2022), it will be necessary to include this topic in the curricula to facilitate cultural change. Finally, structural changes in the Finnish sporting system, such as providing more DC development environments for women and allocating more financial support to women athletes, are urgently needed to effectively support female athletes' professional careers.

### 5.3. Final thoughts

Our work makes a novel contribution to existing feminist post-structuralist research in sport and exercise psychology by showing that language and dominant cultural discourses shape coaches' understanding of how to support their athletes' DCs. More specifically, we show that coaches play an important role in athletes' DC development, as their discursive constructions of athletes' education may have problematic effects on athletes' DCs, especially in senior-level sports. Similarly, by identifying holistic development and education as more important for female athletes and by identifying male athletes as the desirable norm, coaches contribute to the gendering of athletes' DC pathways and therefore reproduce gender hierarchies and inequalities in Finnish sporting culture. Our work also indicates that coaches' views of male normativity are likely to increase pressure on female athletes to be "superwomen," and that interventions are needed to revisit the discourses that construct women as inferior to men in elite sports. Finally, this research provides further support for previous studies on the feminization of DC discourses and practices, specifically regarding the role of coaches in this development (e.g., Ryba, 2018; Ryba et al., 2021).

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### Declaration of competing interest

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### Data availability

Data will be made available on request.

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## II

# **“I WAS EXCITED TO TRAIN, SO I DIDN’T HAVE PROBLEMS WITH THE COACH”: DUAL CAREER ATHLETES’ EXPERIENCES OF (DIS)EMPOWERING MOTIVATIONAL CLIMATES**

by

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**‘I was excited to train, so I didn’t have problems with the coach’: Dual career athletes’ experiences of (dis)empowering motivational climates**

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## **‘I was excited to train, so I didn’t have problems with the coach’: Dual career athletes’ experiences of (dis)empowering motivational climates**

In addition to investing in athletic development, adolescent elite athletes are expected to complete their secondary education. As a result of this expectation and the demands of sport and education, they may struggle to sustain high levels of motivation for both domains. Grounded in theoretical tenets of Empowering Coaching (Duda 2013), this study sought to explore student-athletes’ perceptions of empowering and disempowering motivational climates and their possible implications for athletes’ dual career experiences. Semi-structured interviews were conducted with 17 Finnish student-athletes, and the data were thematically analyzed. The analysis indicated that a majority of the athletes had experiences of disempowering coaching climates due to coaches’ exclusive emphasis on athletic performance. It is concluded that the perception that obtaining an education is less important than sport may potentially decrease athletes’ motivation to pursue an academic track and thus challenge their exploration of future vocations outside the sporting context.

Keywords: motivational climate, youth athletes, empowering coaching, dual careers, Finland

### **Introduction**

In addition to investing in athletic development, adolescent elite athletes are increasingly expected to complete their secondary education. This combination of sport and education, defined as a dual career pathway, aims to ensure that young athletes receive educational and/or vocational training alongside their athletic career, thereby safeguarding their employability and adaptation to life after athletic retirement (European Commission 2012). Recent research on dual careers has emphasized the importance of dual career developmental environments (DCDEs) in facilitating athletes’ successful combination of sport and education (ECO-DC 2018). Interpersonal climates play an especially critical role in the life choices of student-athletes attempting to combine athletic and academic demands (Fuchs et al. 2016; Knight, Harwood, and Sellars 2018). For example, DCDEs offering greater reinforcement of athletic goals than

academic ones may encourage athletes to invest in their sport careers while ignoring their education (Adler and Adler 1985; Meyer 1990). Moreover, while secondary education is commonly pursued in most Western countries, adolescent athletes may find it challenging to persist at school if their life goals, dreams and career aspirations are disconnected from their education (Ryba et al. 2017).

During their adolescent years, many athletes experience changes in their interpersonal environments. They may move away from home to student housing and need to adapt to a different psychosocial environment in which coaches become the most important socializing agents instead of parents (Horn 2008; Wylleman, Reints, and De Knop 2013). Indeed, the social psychological environment the coach creates, referred to as the coach-created motivational climate, is likely to influence athletes' motivations and experiences in sport (Duda and Appleton 2016; Smith, Smoll, and Cumming 2007).

Previous research has mostly investigated coach-created motivational climates using contemporary theories of motivation, such as achievement goal theory (AGT; see Ames 1992; Nicholls 1989) and self-determination theory (SDT; see Deci and Ryan 1985, 2000). AGT outlines that the coach-created motivational climate consists of everything the coach says and does as well as how he/she structures the sport environment regarding training and competitions (Duda 2013). According to AGT, the environment can shape individuals' interpretations of and responses to activities such as sport that reward achievement by contributing to the use of task- and/or ego-involving criteria to judge competence (Newton, Duda, and Yin 2000). Task-involving criteria emphasize personal effort and mastery as well as individual improvement, and these are assumed to be fostered by a task-involving climate. Conversely, ego-involving criteria value being the best compared to others and are likely to be fostered in an ego-involving

climate (Newton, Duda, and Yin 2000). In addition to AGT, researchers have used SDT to describe coach-created motivational climates in sport. SDT proposes that the psychological environment can support or hinder the fulfilment of the three basic psychological needs, which are competence, autonomy and relatedness (Ryan and Deci 2000a).

Greater need satisfaction may be linked to more autonomous goals and to more adaptive and healthful engagement, which are conducive to sustained behaviour (Ryan and Deci 2000a, 2000b). Conversely, diminished or actively thwarted autonomy, competence and relatedness are likely to lead to more controlled reasons for engagement, ill-being and the compromised welfare of the participants involved (Bartholomew et al. 2011; Ryan and Deci 2000a, 2000b). As outlined by SDT, an autonomy supportive sport environment is likely to contribute to the satisfaction of basic psychological needs (Deci and Ryan 2000a, 2000b). In an autonomy supportive environment, athletes can have a sense of choice, self-endorsement and volition as well as experience support from coaches for their self-initiated goals (Bartholomew, Ntoumanis, and Thogersen-Ntoumani 2010). In contrast, in a controlling sport environment, coaches may act as an authoritarian in order to force athletes to behave or think in a certain preconceived way (*ibid*). The external pressures applied by the coach may be perceived by athletes as the origin of their behavior, and the resultant loss of control may undermine athletes' psychological needs as well as their sense of self-determination (Deci and Ryan 1985).

Duda (2013) proposed a conceptualization of the motivational climate in which she integrated the major social environmental dimensions from SDT and AGT. According to this conceptualization, a motivational climate that is task-involving, autonomy supportive and socially supportive can be considered empowering. An

empowering coaching climate is likely to satisfy athletes' basic psychological needs, and many studies have shown its positive influence on athletes' engagement in sport and their overall health (e.g., Appleton and Duda 2016; Jaakkola, Ntoumanis, and Liukkonen 2016; Reinboth, Duda, and Ntoumanis 2004). Conversely, a climate characterized by ego-involving and controlling features is disempowering and likely to thwart the athletes' need satisfaction as well as overall functioning (Duda 2013). Several studies have demonstrated that a disempowering climate is associated with athletes' lowered enjoyment of sport (e.g., Leo et al. 2009) and increases the possibility of burnout (e.g., Bartholomew et al. 2011).

Although previous studies have focused on the coach-created motivational climate in relation to sport, it is likely that these climates also have implications for athletes' educational pursuits. Yet, research on this aspect of coaches' influence on athletes' lives is limited. Previous studies have not investigated coach-created motivational climates among dual career athletes. Moreover, earlier research investigating coaches' attitudes towards athletes' dual careers revealed diverse results. Knight and Harwood (2015) found that coaches in different youth sport environments were consistently supportive of athletes' dual careers. However, it seems that although coaches may embrace the official rhetoric of school being a priority over sport, they may still be unable to provide practical examples of how this view informs their coaching practices (Ronkainen et al. 2018). Moreover, it seems that coaches who are concerned about athletes' holistic development across various contexts create task-involving climates to support athletes' academic achievement (Papaioannou et al. 2008; Poux and Fry 2015). Indeed, it may be that when coaches foster athletes' interests beyond athletic endeavors, these athletes will be better prepared and engaged for their future vocational careers (Poux and Fry 2015).

In contrast, other studies have found that coaches may also have negative views regarding athletes' education, as they may believe that education distracts athletes from focusing on their athletic careers (Meyer 1990; Aunola et al. 2018; Papaioannou et al. 2008). Indeed, it has been suggested that a strongly ego-involving coaching climate may be linked with athletes' decreased academic achievement (Papaioannou et al. 2008). Importantly, coaches who consider education as a back-up plan may actually lure young athletes into dreams of professional athletic careers and may not encourage them to engage with education or find intrinsic value in it (Ronkainen et al. 2018).

The current study extends the literature on the coaches' role in athletes' dual career experiences by examining athletes' perceptions of coach-created motivational climates in their upper secondary sport schools. The majority of the previous research examining empowering coaching climates was conducted in recreational sport among children (e.g., Smith et al. 2016; Duda 2013) and adult athletes (e.g., Appleton and Duda 2016); therefore, this study can provide the applicability of Duda's (2013) framework to the dual career context.

With this background, this study sought to examine the following research questions:

- (1) What kind of coach-created motivational climates did the athletes experience in upper secondary sport schools?
- (2) How did the perceived coach-created motivational climates impact athletes' dual career experiences?

## **Methods**

### ***Epistemological positioning***

This qualitative study was designed to examine athletes' subjective experiences of coach-created motivational climates and their possible implications for athletes' dual career behavior. To answer the stated research questions, we situated our research within the constructivist epistemological position. Essentially, the constructivist position assumes that knowledge production is always theory-laden and situated, and it cannot access an objective reality of a phenomenon (Hansen 2004). As researchers' values and lived experiences cannot be divorced from the research process, it was necessary for the first author to reflect and acknowledge on her own researcher position as a former student-athlete who had graduated from an upper secondary sport school. She had struggled with challenges when constructing a dual career pathway as a student, and later she reflected on her experience in an upper secondary sport school as a pivotal developmental period influencing later life choices. The other authors of this paper worked as critical peers challenging the first author's interpretations and offering an opportunity for dialogue.

### ***Participants***

Participants of the present study were 17 Finnish cross-country skiers, six females and 11 males, ages 23–34 (Mean = 27 years) at the time of the interview. They studied in eight different upper secondary sport schools across Finland, and in total they were coached by 16 different upper secondary sport school coaches. The first author used her personal network to recruit the participants. In Finland, cross-country skiing is a national sport with more than 6500 competitive youth participants from 600 ski clubs (Suomen Hiihtoliitto 2019). Finland also has four upper secondary sport schools in which cross-country skiing is the principal sport. In the Finnish educational system, after completing nine years of compulsory education, students decide on their secondary education. Secondary education comprises upper secondary (considered to be an

academic track preparing students to apply for higher education at a university) or vocational (professional preparation) high school. After completing their upper secondary education, students often apply to universities or polytechnic universities. Likewise, after vocational school, students may transition to the labor market or continue in polytechnic universities.

Participants for the present study pursued secondary education within the national talent development program that structurally enables the construction of a dual career pathway. These specific upper secondary sport schools (*urheilulukiot* in Finnish) collaborate with national sport academies and sport federations to arrange training and support services for athletes as well as assist with dual career planning. Coaches working in youth sport environments, such as in sport schools, often have limited formal training (Schlechter et al. 2017). Despite the structural agreements between sport and education in upper secondary schools, there appears to be no formal job description for coaches to outline goals and responsibilities associated with athletes' dual career pursuits (Finnish National Agency for Education, n.d.)

All the participants in the present study competed in National Junior Championships in cross-country skiing and were considered talented or elite athletes. Moreover, all of them graduated from upper secondary school after spending 3–4 years there. At the time of the interview, three of the participants were competing at the international level and were considered professional athletes, seven participants were competing at the national level and seven had retired from elite sport. Additionally, nine of the participants were university students and one participant was receiving a vocational education. One participant had a university degree, and four of them had a degree from a polytechnic university. One participant had a degree from a vocational

school, and one of them had not continued his studies after graduation from upper secondary school.

### ***Procedure***

After ethical clearance, we invited the participants to take part in semi-structured interviews. They were informed that the focus of the interviews was their subjective upper secondary sport school experiences. After explaining the purpose of the study, participants were informed about their rights to withdraw from the research at any point without any consequences or prejudice. All invited athletes agreed to be interviewed and signed the informed consent form prior to the interview. After a brief introduction to the topic, the athletes were asked to recall their career development experiences in both sport and school during their years at a upper secondary sport school. Probing and follow-up questions were developed from participants' stories to understand their experiences and contexts. For example, many participants wanted to reflect on their transition from comprehensive education to an upper secondary sport school, as this had been challenging for most of them.

After that, we asked participants to elaborate on their upper secondary sport school environments with a specific focus on the interactions with school coaches. We asked both general questions (e.g., How did you experience coaching in your upper secondary sport school?) and more specific ones as follow-up questions (e.g., What kind of athletic goals did you have while at a upper secondary sport school?). For dual career, we asked questions regarding combining athletic and academic demands (e.g., Could you explain how you managed to combine sport and school while at a upper secondary sport school? What were the things that helped you to combine sport and school? What did not help?).

At the end of the interview, participants were asked to reflect on their overall



experiences at an upper secondary school based on their current situation in life (e.g., Do you think that your experiences in a upper secondary sport school affected your later life choices? What were the most critical moments/experiences?). The interviews proceeded differently every time, and as our interview guide was semi-structured, there was flexibility within to allow greater depth of exploration. The interviews lasted between 30 and 75 minutes and were conducted by the first author, digitally recorded, and transcribed verbatim.

### ***Data analysis***

Thematic analysis as explained by Braun and Clarke (2006) was used to analyze the data. In the first stage, all of the interviews were transcribed verbatim and read through several times by the first author to become familiar with the data. Our analytic procedure involved a succession of inductive and deductive processes, which can be described as an abductive approach (Ryba et al. 2012). Abductive reasoning involves a dialectical movement between everyday meanings and theoretical explanations, recognizing the creative process of interpretation when applying a theoretical framework to explain participants' experiences (Atkinson and Delamont 2005). This procedure was followed because the aims of the study were to understand athletes' experiences (inductively) and determine whether these experiences could be understood in the theoretical framework of Empowering Coaching (Duda 2013) (deductively).

After noting the initial ideas and impressions, the process of sorting codes took place; similar excerpts from the transcripts were inductively segmented into raw themes. Each raw theme was collected as quotes expressing athletes' subjective experiences with coach-created motivational climates (Patton 2002). Next, the raw themes were deductively categorized into the different motivational climates as explained in Empowering Coaching (task-involving, autonomy supportive, socially

supportive, ego-involving and controlling) (Duda 2013). In the analysis, we identified an additional climate that was not included in the original theory. This climate was defined as socially unsupportive and characterized by athletes' experiences of coaches who lacked concern, care and relationships (Van den Berghe et al. 2013). Within each theme we identified the subthemes. For example, for an autonomy supportive motivational climate, the subthemes were giving athletes options and choices and emphasizing athletes' own excitement for sport. The first and the second authors had weekly discussions during the analysis phase, and the emerging results were presented several times to other members of the research group.

## **Results**

We identified five themes – autonomy supportive, socially supportive, ego-involving, controlling and socially unsupportive – that could be further categorized under empowering and disempowering coaching (Duda 2013). All the categories and the number of participants that mentioned them are presented in Table 1. Quotes from the interviews are offered with pseudonyms.

Table 1 near here.

### ***Experiences with autonomy supportive coaching climates***

Three athletes recalled experiences with autonomy supportive coaching climates. They explained how the coaches had taken their athletic level into consideration and thus provided additional and more challenging training options for them:

I liked to train in the group with all the other skiers, but I also did a lot of workouts by myself or with the other top skier girls. My training intensity and pace were quite different from most of the other girls, and I really wanted to focus on my workout. It was good that the coach allowed me and the other top skier girls to modify the training

plans once in a while. We attended the group trainings, but we also had a chance to do other, more intense workouts. (Silja)

Eemeli had a similar experience with coaches offering him possibilities to train harder after reaching athletic success in skiing:

When I was in high school, I first did both cross-country skiing and orienteering. During my last year in high school, I achieved very good results in skiing, and thus I really wanted to focus more on skiing. Coaches offered possibilities for more ski-related workouts such as roller skiing and upper body strength. I also did more workouts on my own than with the group, and the coaches agreed with that. (Eemeli)

In addition, athletes stated how some coaches created fun and enjoyable training environments:

When I entered high school, I didn't have any special athletic goals that I should achieve. However, in sport high school, my athletic development started to rock. Everything worked out well; we really had fun and we enjoyed life and trainings with the coach. In the trainings, our focus was not on the athletic development at all. It almost felt like we developed that by accident. We had a high-quality coach who didn't put pressure on us, and that's the reason we achieved such good results. The following winter I won the Junior Nationals for the first time. (Jesse)

### ***Experiences with socially supportive coaching climates***

Four athletes experienced support from coaches regarding social matters. Participants recalled the closeness of their coach–athlete relationship and how they were able to trust their coach to take care of them:

Our coach was really good; he was like our high school parent, and we respected him a lot. He supervised us in our student dormitory, and without his help, things wouldn't have worked out for us. If someone had problems and needed help, we always let the coach know about it. We trusted our coach, unlike the other adults, such as teachers for example. All of us skier boys lived quite far from home. (Aleksi)

Silja had a similar experience:

Our coach was interested in us more than just as athletes. We had a great team spirit and we sometimes spent our free time with our coach. I felt that you could count on him to care; he didn't leave us alone. (Silja)

Moreover, some athletes stated how sharing ideas and having conversations with the coach was important to them:

Our coach was a rather holistic one. We had lot of group meetings; he was never in a hurry, and he always had time to talk if needed. For me, he was the first adult to really discuss sport with. He was very approachable and easy to talk to. I think the coach did a good job, and the skiing program worked very well. (Lassi)

### *Experiences with ego-involving coaching climates*

Nine athletes stated their experiences with ego-involving coaching climates. From the athletes' perspectives, the coaches' priority seemed to be to ensure their athletic development. For example, Juho felt that 'The coach was passionate to help drive us forward in our athletic career'. However, this athletic development did not seem to concern aspects such as learning or developing new skills; instead, it meant achieving better performance outcomes. Teemu offered, 'Our coach had the aim that each of us must be able to reach better performance outcomes by the end of high school'. Indeed, participants remembered how coaches had set guidelines for the rankings that the athletes should achieve to be considered successful. According to Ville, 'The coach requested that we should qualify at least in the top three at Junior Nationals.'

Athletes stated how being the best and demonstrating superiority over their competitors was not limited to competitions. Intra-team rivalry was also encouraged in their daily training routines:

In our trainings, our coach often challenged us to beat him the coach. If you were able to do that, you got respect. Our coach participated in competitions himself and he was in good shape. When we participated in the same competitions with him, we really had to beat him. (Ville)

Furthermore, athletes described how their athletic achievements and successfully reaching the goals coaches set for them influenced coaches' interest towards them:

It was clear from the very beginning that better athletes will get more attention from the coach. I was not the best, but when I achieved my first top three result in Junior Nationals, I noticed how the coach was more motivated to spend time with me. (Teemu)

Petra had a similar experience: 'My friends talked about coaches favoring the best athletes. I was one of the best, so it may be that I was favored. However, I didn't mind being in such a position; I just focused on my workouts'.

However, many athletes reflected that coaches invested less time in athletes who were not as successful. Petra also stated, 'I think the coaches had an idea of the potential of the athlete. It seemed that this affected the coaches' motivation to coach the athletes. Those athletes with less potential received less attention than those considered as talented athletes'. Anniina supported this view: 'Our coach was performance-oriented. He was more supportive of those athletes who really wanted to develop as athletes and to achieve good performance outcomes. Those athletes who didn't have the passion for sport were often left without attention'.

Finally, a few athletes even recalled coaches who only focused on the most successful athletes:

If you hadn't reached a certain level in your results, this coach wasn't interested in coaching you at all. He didn't have the passion to make us all better. He spent his time with the athletes who had qualified the best in competitions. (Juho)

### ***Experiences with controlling coaching climates***

Nine athletes explained their experiences with controlling motivational climates.

Athletes stated how the coaches were only accepting those athletes who demonstrated the desired behaviors. Kiia offered an example:

Our coach doesn't like me anymore because I left the sport high school. He has always favoured the best athletes and those who are ready to invest the most in the sport. I didn't agree with his methods; I told him my opinion, and he didn't accept that. (Kiia).

Furthermore, many participants recalled how, in order to get along with the coach, it was important to demonstrate high levels of motivation and dedication for training. Eemeli stated, 'I know that the way the coach treated us was dependent on our dedication to sport. For example, if someone missed the practices, the coach wouldn't invest as much attention to you in the future anymore'. Ville explained:

I was very excited to train so I didn't have problems with the coach. Conversely, athletes with less commitment to sport had problems with the coach. He was more controlling for athletes with less motivation, and this resulted in them having a poor relationship. However, my experience of working with the coach was only positive. (Ville).

Teemu felt similarly:

I was very active in the training, and I had a feeling that our coach was interested in my training and competitions. However, you could tell that he didn't care about all of us. This ended up with us having quite a poor team spirit in our training group. (Teemu).

In addition to receiving more attention, athletes stated that coaches were more supportive of the autonomy of those athletes whom the coaches perceived as motivated and invested in their athletic careers:

I think it was good that the coach gave more freedom to the athletes who had earned his trust because he knew that they are investing in the sport. For example, the coach allowed them to miss the compulsory group workouts once in a while without consequences. Conversely, if those athletes whom the coach didn't trust skipped training sessions, the coach became annoyed. (Ville)

Finally, some athletes had experiences with coaches who controlled every aspect

of their daily training:

Most of our training sessions were with other individual athletes from different sports. Our coach didn't allow skiers to go to the ski track by themselves. Therefore, we didn't have ski-specific training in high school. You can say that he was a control freak. He always wanted to see that we really trained instead of just lazing around. After achieving podium results in Junior Nationals in the first year of high school, the coach began to believe that we did take our sport seriously. (Kalle)

Moreover, some participants recalled how, regardless of their situation, the coaches requested them to execute coach-planned training programmes. Kiia offered:

Our coach always wanted us to do as many high-intensity workouts and as many hours of training as possible. Often, that was a poor decision. For example, once when I was sick, he forced me to complete a high-intensity interval workout. With his training plans, he was not realistic at all. (Kiia).

### *Experiences with unsupportive coaching climates*

Finally, eight athletes recalled experiences with socially unsupportive coaching climates. Participants stated how coaches were often concerned about their athletic performance and yet did not demonstrate any additional interest in the athletes as individuals:

I think the coaches only cared about our sport performance. This was not good at all because if you needed help with non-ski related problems, it felt like there was no one helping you. From my experience, it would be really important for coaches and athletes in sport high school to have a good relationship outside the training time. Being able to trust the coaches and interact with them would most certainly reduce the problems athletes encounter in their daily life. Athletes may live far away from home, and they may get easily lured into bad habits, such as drinking. Having a good relationship with a coach would really help the athletes to stay focused and to avoid such situations. (Juho)

Matias felt similarly:

I had the feeling that no one cared about me. Of course, there were many athletes, but supporting us in other aspects of life didn't seem to belong to coaches' list of duties. Their job seemed to have been to organize the group trainings. At the beginning, I thought that the coaches would be really interested in me and my training, as they were the best junior coaches in Finland. However, I ended up having issues with my health which resulted in me having difficulties when training. The coaches had no idea of what should be done. I was very disappointed as I thought that it would have been coaches' responsibility to take care of us there. (Matias).

Moreover, participants recalled how coaches did not seem to acknowledge or support their educational pursuits. However, the participants felt that because of their position of authority, the coaches could have influenced their motivations and choices regarding studying if they had intervened:

We had a good coach, but of course he only focused on the sport classes. He didn't pay any attention to our educational pursuits. From my experience, sport and school were quite separate. If they had been better integrated, the coach might have asked how we are doing at school for example. His interest in our educational pursuits would have helped because he had a lot of authority, and we always did what he told us to do. If he had asked how I was doing at school and advised not to choose that many classes at once, I probably would have believed him. (Niilo)

Furthermore, some participants experienced coaches who ignored their educational pursuits, considering these to be less important than sport. Tiia stated, 'Sometimes it seemed that the coaches forgot that we also went to school and that getting an education is also very important'.

## **Discussion**

In this study, we explored athletes' experiences of coach-created motivational climates in upper secondary sport schools in Finland. This extends the research that has already been conducted on coach-created motivational climates by being the first study to qualitatively explore empowering and disempowering motivational climates among



adolescent elite athletes. Our analysis revealed how a majority of the participants had experiences of disempowering coaching climates characterized by ego-involving, controlling, and socially unsupportive features. In contrast, only a few athletes recalled experiences of empowering climates with autonomy supportive and socially supportive features. Based on these experiences, it is likely that coaches' main concerns in upper secondary sport schools are to ensure athletes' athletic development without giving much consideration to their holistic development across various contexts.

For further insights, there seems to be a need to consider how the coaching context, in this case working in an upper secondary school, might have influenced coaches' behaviors. Indeed, because sport settings are often rather competitive, it may be that coaches had the pressure of performing well and bringing medals and glory to their school (e.g., Mageau and Vallerand 2003). For example, it is not uncommon for coaches' jobs to be dependent on their athletes' athletic performance and achievements. Under such pressured circumstances, coaches are more likely to become egotistically involved in their work and, in turn, emit controlling behaviors (Deci et al. 1982).

However, athletes' experiences with coaching climates may also be dependent upon their behaviors and personal characteristics, as coaches did not behave the same with all athletes. A coach–athlete relationship can be seen as a reciprocal process in which both have motivational relevance on each other (Jowett and Ntoumanis 2004). Within our sample, it is notable that athletes who demonstrated high levels of motivation for sport had more experiences with coaches who supported their autonomy than the athletes investing less in their athletic careers (e.g., Rocchi, Pelletier, and Couture 2013). In light of previous research, the adoption of more controlling behaviors for athletes who were incapable of working independently decreased these athletes' intrinsic and self-determined motivation for sport. Ironically, despite coaches' possibly

good intentions to motivate athletes by utilizing ego-involving and controlling behaviors, by doing so they may actually have jeopardized the motivation they wished to increase (e.g., Duda 2013; Leo et al. 2009). This may especially have been the case for athletes who already had decreased motivation for sport.

As a second objective of the study, we sought to examine how the coach-created motivational climates the athletes perceived in upper secondary sport schools might have impacted their dual career experiences. Based on the interviewees' experiences with coaching climates, it seemed that none of the coaches demonstrated active interest in or took into account athletes' educational pursuits in their daily coaching practices. It seems that education was considered to be less important for athletes, and coaches instead encouraged athletes to focus on developing their athletic careers. The potential scenario here is that athletes may adopt the coaches' view of education as unimportant, and as such, they may be discouraged to achieve their academic goals (e.g., Ronkainen et al. 2018; Adler and Adler 1985). Indeed, being immersed in such a performance-oriented environment may facilitate athletes developing a self-identity that is exclusively based on their athletic performance and achievements. If athletes' dreams and career aspirations are mostly connected with athletic endeavors, they may find it difficult to persist at achieving in education (Ryba et al. 2017). Because successful completion of secondary education is crucial in terms of later tertiary educational enrolment, weak academic performance in upper secondary school may compromise athletes' future education and employability (Lally and Kerr 2005).

All of the coaches mentioned in this study worked at upper secondary schools and were considered school staff. However, despite the structural agreements between educational and sporting bodies in upper secondary schools, there seems to be a lack of a formal dual career framework outlining the roles and responsibilities of each actor

involved. Also, the structural agreements do not seem to ensure collaboration between different actors (e.g., coaches and teachers), despite all of them working under the official dual career policy. If upper secondary schools wish to improve their dual career practices, coaches need support in developing these practices in their daily work. For example, coaches would benefit from having a more explicit description of their list of duties outlining the responsibilities regarding athletes' dual careers. Moreover, to advance the integration of the dual career agenda into coaching practices, appropriate content should be included in coach education. In light of this research, dual career athletes might benefit from coaches who foster more empowering coaching climates that support athletes' determination to achieve success in both sport and education. This could be facilitated by helping coaches to develop coaching practices with more focus on athletes' holistic development across various contexts. Our suggestion also coincides with the European Commission's (2012) guidelines for dual career athletes, which states that coaches should have competences to view athletes from a holistic perspective and should also understand risks that are not directly linked to sport training.

As with all research, the present study has its limitations. Our sample was demographically limited, as all of the athletes were drawn from Finnish upper secondary schools with a similar competitive background. As a result, it is likely that their experiences of coach-created motivational climates are by no means exhaustive. Therefore, their perceptions do not represent the experiences of all student-athletes in all different sports and with different cultural backgrounds. Furthermore, our conclusions are based on interviews with athletes only, and complementing these views with observations and coach interviews is needed to gain a more complete picture of the studied phenomenon. Moreover, learning and utilizing the research findings to enhance our understanding of how to create a more sustainable dual career environment is

important. The type of generalization that qualitative research seeks is transferability, which means that instead of searching for correlations, we focus on to what extent the results are transferable to another setting (e.g., Smith and McGannon 2018). Thus, as a reader of the research, it is important to consider whether the research overlaps with the reader's own situation, or if the findings could be transferred to his/her own actions. For future research, we suggest using a quantitative approach to further extend the current literature on the implications of coach-created motivational climates in terms of athletes' academic motivations and achievements.

### **Conclusion**

The present study contributes to the limited literature on coach-created motivational climates and their possible implications for athletes' dual career behaviors, with a specific focus on adolescent athletes in Finland. The majority of the participants in this study experienced disempowering coaching climates characterized by ego-involving, controlling, and socially unsupportive features, with coaches focusing on facilitating their athletic development. Athletes' experiences of coaches' involvement in their educational goals were rather limited, and the coaches did not seem to consider obtaining an education or exploring other life experiences as important for athletes. Furthermore, being immersed in such a performance-oriented environment may have limited athletes' possibilities to explore other career options outside the sporting context and thus discouraged them from engaging in academic pursuits. Moreover, supporting coaches with more explicit structural agreements in schools and educating them to implement more sustainable dual career practices seems necessary.

### Declaration of Conflicts of Interest

The author(s) declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

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Table 1. Athletes' experiences categorized as empowering and disempowering coaching climates

No. of Participants Citing the Category	Main Category	Subcategories	Subjective Experiences
4	Empowering	Autonomy supportive	Giving athletes options and choices; emphasizing athletes' own excitement for sports
		Socially supportive	Helping and caring for athletes as individuals; providing conversational support
13	Disempowering	Ego involving	Emphasizing performance outcomes and intra-team rivalry; favoring the best athletes
		Controlling	Requiring certain behaviors for acceptance; imposing strict rules for training
		Socially unsupportive	Lacking concern and care for athletes as individuals; lacking involvement in athletes' educational pursuits



### III

## **THE ROLE OF GENDER AND COACHING STYLES IN ADOLESCENT STUDENT-ATHLETES' MOTIVATIONAL ORIENTATIONS IN SPORT AND SCHOOL**

by

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# The role of gender and coaching styles in adolescent student-athletes' motivational orientations in sport and school

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## Abstract

Research indicates that the dominant discourses of gender are ingrained in dual career (DC) practices critically influencing athletes' motivation to construct a DC pathway. While it is important to ensure that all athletes have an equal access to construct a DC pathway despite their gender, there is a gap in the literature examining the role that coaches play in gendering of athletes' DC pathways. The present study longitudinally examined the gender differences in student-athletes' motivational orientations in sport and academics throughout high school and the role of coaching style in these orientations. The gender differences in coaching styles in terms of student-athletes' gender, coaches' gender, and their interaction were also investigated. The sample consisted of 248 student-athletes from six upper secondary sport schools across Finland. The participants filled in questionnaires at the beginning of the first year and at the end of the third year of upper secondary sport school. The results showed that female student-athletes demonstrated higher levels of mastery orientation than males in both sport and school domains. Affective coaching style predicted male student-athletes' mastery orientation in sport and both male and female student-athletes' mastery orientation in school. Finally, female coaches were reported using more of an affective coaching style than male coaches. The results suggest that athletes benefit differently from an affective coaching style based on their gender and that it is beneficial to educate coaches how to use an affective coaching style with their DC athletes.

**Keywords** Coaching · Motivational orientation · Gender · Dual career · Athlete

## Introduction

Talented adolescent athletes in Nordic countries are increasingly expected to combine their sporting careers with academic and/or work to create a dual career pathway (DC). Previous research on dual careers in sports and academics has demonstrated that during adolescence, succeeding in both is a challenging developmental task due to, for

example, increasing demands, conflicting goals, and overlapping schedules (see Stambulova & Wylleman, 2019). Recent research has found that dominant discourses of gender are ingrained in DC policies and practices which influences athletes' motivation, and career aspirations (Ryba et al., 2021). While the current DC policy documents highlight the importance of equality and anti-discrimination in DC practices (European Commission, 2012, 2014), coaches' role in gendering of athletes' DC pathways has received limited scholarly attention. This is a critical void in the literature because coaches are central socializing agents for young athletes (Smith et al., 2016) whose gender views may be transmitted to athletes in coach-athlete interactions, thus shaping the way athletes construct their DCs.

Recent studies have found that female athletes often experience cultural pressure to invest in educational and DC goals and to excel in multiple roles simultaneously, whereas male athletes have been found to be more relaxed about their career aspiration (Kavoura & Ryba, 2020). Recent scholarship indicates that we may even be witnessing a femininization of DCs; that is, the DC discourses and practices are

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gendered, and seem to be particularly important for young female athletes (Skrubbeltrang, 2019). While the increased pressure for female athletes to be so-called 'superwomen', who can succeed at everything, may support female athletes' athletic and academic excellence, it also positions them as inferior to men and vulnerable to psychological distress (Ryba et al., 2021). Although previous studies have shown that there may be gender differences in adolescent athletes' achievement motivation both in the domains of sports (Hanrahan & Cerin, 2009) and academics (Arens & Watermann, 2021), few studies thus far have specifically examined gender differences in student-athletes' motivational orientations in DC contexts (as an exception, see Viljaranta et al., 2022). Moreover, while the role of coach in athletes' sport motivation has been extensively investigated (e.g., Amorose & Anderson-Butcher, 2015; Knight et al., 2018; Smith et al., 2016), only a few earlier studies have aimed to understand the role that coaches play in athletes' school motivation and whether the role of coaches is gendered (Saarinen et al., 2020). Examining this is important as in Finnish athletic high schools where the present study was carried out, coaches are considered members of the school staff and are expected to support their athletes' academic performance as well. Earlier studies have also shown that in DC context the domains of sports and academics are interlinked: for example, Into and colleagues (Into et al., 2020) recently reported that student-athletes' perceptions of performance-oriented and controlling coaching climates predicted athletes' symptoms of burnout, not only in sports, but in school as well. To support athletes' active engagement in the DC and life design, as well as to better understand the gender dynamics in a DC context, it is important to deepen current understandings of how coaching interaction styles influence their athletes' motivational orientations not only in sports but in school as well.

### Motivational orientations

One theoretical framework that offers a social-cognitive approach to understanding and studying motivational orientations is Achievement Goal Theory (AGT; Ames, 1992; for a review, see also Anderman, 2020; Urdan & Kaplan, 2020). AGT is based on two assumptions: individuals act rationally, and the adopted achievement goals guide future achievement decisions and behaviors. In the AGT framework, the main goal of action is the demonstration of competence (Anderman, 2020; Nicholls, 1989). Furthermore, AGT outlines two primary goal orientations: mastery (or task) and performance (or ego). In mastery orientation, students' motivation comes from developing competence or gaining a mastery of a task, such as learning new skills, improving their performance, and doing their best. In this construction of competence, the perception of ability is self-referenced.

In performance orientation, students' source of motivation is normative competence, such as winning and outperforming others, doing normatively well, and managing to accomplish a given task with less effort than others. Thus, in performance orientation, the perception of ability is normatively or socially referenced (Anderman, 2020; Urdan & Kaplan, 2020).

In the literature, motivational orientations have been related to various achievement outcomes in the domains of both sports and school. Sport mastery orientation has been associated with positive outcomes, such as positive emotions and motivation for skill development, whereas performance orientation has been associated with more maladaptive behaviors, cognitions and emotions, particularly when the perceived level of competence is low (Lochbaum et al., 2016). Additionally, in the academic context, mastery orientation has been associated with positive outcomes, such as students' intrinsic motivation and higher engagement in learning (Maehr & Zusho, 2009; Wigfield & Cambria, 2010). The findings concerning performance orientation, in turn, have been less consistent: performance orientation has been associated with both adaptive achievement behaviors, such as high levels of self-efficacy and task persistence, as well as with maladaptive behaviors, such as low levels of self-efficacy and task engagement (Tuominen-Soini et al., 2012; Urdan & Kaplan, 2020). Importantly, in studies conducted among student-athletes, it has been found that mastery goals in sports and school are negatively associated with cynicism and feelings of inadequacy within the same domain, whereas performance goals in school may be positively associated with school-related cynicism (Sorkkila et al., 2018).

According to literature on goal orientation theory (Ames, 1992; Nicholls, 1989; Urdan & Kaplan, 2020) individuals develop different motivational orientations based on their experiences with the significant others, such as with coaches. More specifically, female athletes and students have been found to exhibit higher levels of mastery-oriented motivation both in the sport (Hanrahan & Cerin, 2009) and school (Arens & Watermann, 2021) domains compared to males. Performance orientation, in turn, is more typical for male athletes and students in both sport (Ong, 2019) and school (Arens & Watermann, 2021) domains.

### Coaching styles

Earlier coaching literature has mostly examined the role of a coach in student-athletes' motivation in sports in consideration of two coaching styles: the role of autonomy-supportive versus controlling coaching style (Amorose & Anderson-Butcher, 2015; Smith et al., 2016). Based on Self-Determination Theory (SDT; Deci & Ryan 1985; Ryan & Deci, 2002; Urdan & Kaplan, 2020), the autonomy-supportive

coaching style is characterized by coaches recognizing athletes' preferences and taking their perspectives into consideration, acknowledging the athletes' feelings and providing them with meaningful choices, and welcoming their input in decision-making (Mageau & Vallerand, 2003). Controlling coaching, in turn, is characterized by coaches behaving in pressuring, coercive, and intimidating ways toward their athletes (Amorose & Anderson-Butcher, 2015; Urdan & Kaplan, 2020).

Moreover, parents have been considered the most important gender-role socializers for their children. Therefore, to better understand the gender dynamics in coach-athlete relationships, the present study approached coaching from a novel theoretical perspective previously employed in parenting literature in consideration of affection and psychological control. As in the parenting literature (e.g., Wouters et al., 2013), affection refers to the degree to which coaches emotionally support the student-athletes and provide them with warmth. In the parenting literature, this style has been shown to have positive consequences for healthy adolescent development (Aunola et al., 2013) as well as educational and career success (Wang & Eccles, 2012). Psychologically controlling parenting style, in turn, refers to parents' attempts to control adolescent's emotions and behaviors by psychological means, such as guilt induction and withdrawal of affection (Barber, 1996; Aunola et al., 2013). In earlier studies psychological control has been associated with negative developmental outcomes, such as internal distress and problem behaviors (Aunola et al., 2013).

From the SDT perspective, the concepts of affection and psychological control can be seen similar to those of presented in the coaching literature, that is, to autonomy-supportive and controlling coaching styles. Drawing from both AGT and STD, earlier coaching literature (Amorose & Anderson-Butcher, 2015; Duda, 2013; Smith et al., 2009, 2016) has highlighted that mastery-oriented, autonomy-supportive, and socially supportive coaching behaviors (i.e., affective behaviors) contribute to the athletes' basic psychological needs satisfaction and are therefore important in athletes' developing a mastery-oriented conception of competence. Psychological control and the controlling coaching style, in turn, are assumed to thwart adolescents' psychological needs satisfaction (Amorose & Anderson-Butcher, 2015; Duda, 2013) and are, therefore, linked to athletes' developing a performance-oriented conception of competence.

Furthermore, prior limited studies examining the gender construct in coaching settings have found that coaches' gender and athletes' gender may shape the adoption of a specific coaching style. For example, Hovden and Tjønnndal (2019) and Norman (2016) suggest that female coaches typically display a coaching style characterized by empathy, communication and cooperation, whereas male coaches are more likely to demonstrate a coaching style characterized by

controlling features and an authoritarian leadership style. The results are similar in the parenting literature since females, specifically mothers, have often been found to exhibit a warmer, more affective parenting style toward their children. Fathers, in turn, have often been prone to demonstrate parenting styles characterized by controlling features (for a review, see Endendijk et al., 2016). Furthermore, there is also some evidence that parents may be more likely to show affective and autonomy-supportive parenting toward their daughters than toward their sons (Endendijk et al., 2017). In the present study, longitudinal data was utilized to investigate gender differences in young athletes' motivational orientations (i.e., mastery versus performance) in athletics and academics across high school and specifically the role of coaching styles (affection/warmth and psychological control) in these orientations. Gender differences in coaching styles in terms of athletes' gender, coaches' gender, and their interaction were also investigated. The primary research questions were:

- (1) Are there gender differences, across high school, in athletes' motivational orientations (i.e., mastery versus performance orientation) in sports and school? H0: There are no gender differences in student-athletes' motivational orientations in sport or in school. H1: Female athletes exhibit higher mastery orientation than males and male athletes exhibit higher performance orientation than females both in sport (Hanrahan & Cerin, 2009; Ong, 2019) and in school (Arens & Watermann, 2021).
- (2) To what extent do coaches' coaching styles, in terms of affection and psychological control, play a role in athletes' mastery and performance orientations at the end of high school (T2) in sports and school? Are there gender differences in these associations? H0: Coach affection and psychological control are not associated with athletes' mastery and performance orientations in sports or school at T2. H1a: Coach affection is positively associated with athletes' mastery orientation in sports at T2 (Ryan & Deci, 2002; Urdan & Kaplan, 2020). H1b: Coach psychological control is positively associated with athletes' performance orientation in sports at T2 (Ryan & Deci, 2002; Urdan & Kaplan, 2020). H1c: Female student-athletes benefit more than male student-athletes from coach affection in terms of their mastery orientation in sports (Amorose & Horn, 2000; de Haan & Knoppers, 2020).
- (3) To what extent do athletes' gender, coaches' gender, and their interaction (*athletes' gender X coaches' gender*) play a role in coaching styles with respect to affection and psychological control? H0: There are no gender differences in coaching styles in terms of athletes' and coaches' gender. H1a: Coaches demonstrate higher levels of affection toward female than male athletes,

and higher levels of psychological control toward male than female athletes (Endendijk et al., 2017). H1b: Female coaches demonstrate higher levels of coach affection than male coaches, and male coaches demonstrate higher levels of coach psychological control than female coaches (Hovden & Tjønnndal, 2019; Norman, 2016). H1c: Female coaches demonstrate higher levels of affection toward female athletes than toward male athletes, and male coaches demonstrate higher levels of psychological control toward male athletes than toward female athletes (Endendijk et al., 2016; Norman, 2016).

## Materials and methods

The present study was conducted in Finland. In the Finnish educational system, after completing nine years of compulsory education, adolescents have to make a decision concerning their secondary education. Secondary education comprises either upper secondary school (considered to be the academic track preparing students to apply for higher education in university) or vocational school (professional preparation for transitioning to the labor market or continuing in polytechnic schools, also referred to as universities of applied sciences (UAS)). In Finland, talented or advanced young athletes most often pursue a secondary education within the national talent development program, structurally enabling the construction of a dual career pathway. Sports high school ('urheilulukiot' in Finnish) collaborate with sports academies and athletic clubs to arrange daily training for athletes, offer the possibility of extending the three-year academic curriculum to 3.5 or 4 years, give study credits for sports, and assist with dual career planning. Currently there are 15 upper secondary schools in Finland that have been labelled upper secondary sport schools by the Ministry of Education and Culture.

## Participants and procedure

Data of the participants in the present study were drawn from the Winning in the Long Run research project (Ryba et al., 2016) in which talented student-athletes from six athletic high schools across Finland (two each from the Northern, Central, and Southern regions of Finland) were followed throughout their high school years. The Ethics Committee of the relevant university approved the procedure of the study) in June 2015. The sample of the present study consisted of 248 (51% female) 15–16 years old ( $M = 16.00$ ,  $SD = 0.17$ ) Finnish-speaking student-athletes who answered questionnaires both at the beginning of the

first year in upper secondary athletic school (fall, T1), and at the end of the third year (spring, T2). Prior to the data collection, all of the participants were informed about their rights and they provided written consent indicating their voluntary participation in the study. All of the invited student-athletes agreed to participate in the study. At both of these measurement points (T1 and T2), the participants filled in a self-report questionnaire. Data concerning motivational orientations were collected at Time 1 (T1) and Time 2 (T2). Data concerning coaching styles were collected at T2. Ethical guidelines were followed throughout the data collection process.

## Measurements

**Motivational orientation in sports** Student-athletes' motivational orientation in sports were measured using the Perceptions of Success Questionnaire (POSQ) (Roberts et al., 1998). The POSQ scale consists of 10 items, six of which measure mastery orientation in sports and four that measure performance orientation in sports. All items were rated on a five-point Likert scale (1 = completely disagree, to 5 = completely agree). The Cronbach alpha reliability coefficients for the mastery orientation subscale were 0.74 and 0.89 and for performance orientation subscale 0.86 and 0.92 in T1 and T2.

**Motivational orientation in school** Student-athletes' motivational orientation in school were measured using the student self-rated Perceptions of Success Questionnaire (POSQ) (Roberts et al., 1998) modified for the academic context. The modified POSQ scale consists of 10 items, six of which measure mastery orientation in school and four that measure performance orientation in school. All items were rated on a five-point Likert scale (1 = completely disagree, to 5 = completely agree). The Cronbach alpha reliability coefficients for the mastery orientation subscale were 0.88 and 0.89 and performance orientation subscale 0.91 and 0.92 in T1 and T2.

**Coaching styles** Student-athletes' perceptions of coaches' affection and psychological control were measured using a questionnaire tailored for the coaching context, based on the Finnish version (Aunola & Nurmi, 2005) of Block's Child Rearing Practices Report (CRPR) (Roberts et al., 1984). The questionnaire includes items assessing coaching attitudes, values and behaviors. The score for affection included four items reflecting the coach's positive relationship with the athlete. The score for psychological control included five items that reflect the coach's attitudes appealing to guilt and expressing disappointment (Barber, 1996). Student-athletes' responses were rated on a five-point

Likert scale (1 = not like me at all, to 5 = very much like me). The Cronbach alpha reliability coefficients for coaches' affection and psychological control were 0.78 and 0.78, respectively.

**Analysis strategy**

The statistical analyses were performed using Structural Equation Modeling (SEM). Separate models were conducted for the domains of sports and school. The measurement portion of the models included latent factors for mastery (6 observed items as indicators) and for performance (4 observed items as indicators) orientation scales at two measurement points, T1 and T2. The measurement structure for motivational orientations was assumed to be invariant across time and, therefore, factor loadings, intercepts of the observed variables, and residual variances of observed variables were set equal across time (T1, T2) for both constructs. Furthermore, latent factors for coach affection (4 observed items as indicators) and for coach psychological control (5 observed items as indicators) were specified (T2). The structural part of the model included the following regression paths: (1) paths from the mastery orientation factor and performance orientation factor at T1 to the corresponding factors at T2; (2) paths from coach affection and psychological control factors at T2 to mastery orientation and performance orientation factors at T2; and (3) paths from student-athletes' gender to each factor (T1, T2). Additionally, (4) coach affection and psychological control were regressed on coaches' gender. In the model, coach affection and psychological control factors were allowed to correlate with each other. Similarly, mastery orientation and performance orientation factors at T1 were allowed to correlate with each other, and also with coach affection and psychological control factors at T2. Finally, the residual

covariance between mastery orientation and performance orientation factors at T2 were allowed to correlate.

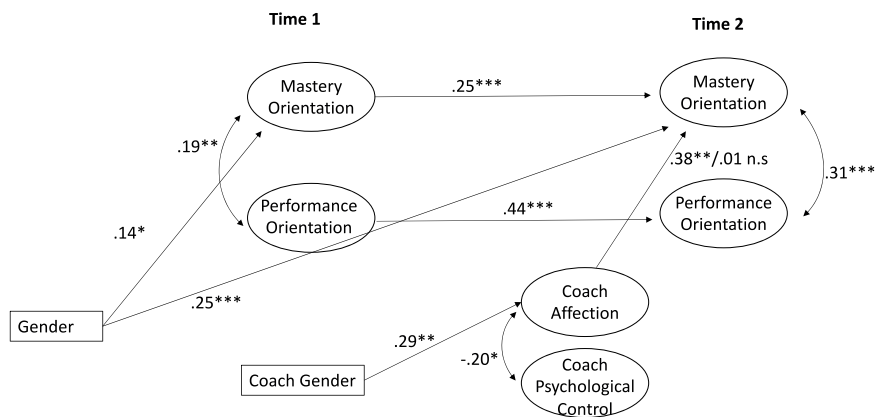
After testing the basic model, we moved forward to test whether the associations of coaching styles with motivational orientations would be different for females and males. For this purpose, a multigroup method was applied. If the regression coefficient paths from coach affection and/or psychological control factors to mastery orientation and/or performance orientation factors differed between gender, the multigroup method was used. The analyses were conducted using Mplus statistical software (version 8; Muthén & Muthén, 1998–2017). The parameters of the models were estimated using full information maximum likelihood estimation with standard errors that are robust to non-normality (MLR estimator; Muthén & Muthén, 1998–2017). The model fit of the data was estimated using three indicators: chi-square ( $\chi^2$ ) test, Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). A nonsignificant  $\chi^2$ -test value, a value below 0.06 for RMSEA, and a value below 0.08 for SRMR was considered to indicate a good fit between the hypothesized model and the observed data.

**Results**

**Structural equation modeling for the sport domain**

The results of structural equation modeling (SEM) for the athletic domain are depicted in Fig. 1 (standardized estimates). Factor loadings of the related measurement models are shown in Table 1. The tested model fit the data well:  $\chi^2(431) = 754.65$ ; RMSEA = 0.051; SRMR = 0.082. The results showed (see Fig. 1) that gender was associated with student-athletes' mastery orientation in sports:

**Fig. 1** Motivational orientation in sport and the role of coaching styles in this. Note. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$



**Table 1** Standardized factor loadings for the model of motivational orientation in sport and the coaching styles

	Mastery orientation T1	Mastery orientation T2	Performance orientation T1	Performance orientation T2	Coach affection T2	Coach psychological control T2
Q18_2	0.41					
Q18_3	0.72					
Q18_5	0.75					
Q18_6	0.70					
Q18_8	0.42					
Q18_9	0.47					
Q11_2		0.52				
Q11_3		0.61				
Q11_5		0.84				
Q11_6		0.80				
Q11_8		0.53				
Q11_9		0.59				
Q18_1			0.80			
Q18_4			0.89			
Q18_7			0.63			
Q18_10			0.75			
Q11_1				0.82		
Q11_4				0.91		
Q11_7				0.65		
Q11_10				0.77		
Q12_3					0.71	
Q12_6					0.59	
Q12_11					0.91	
Q12_14					0.55	
Q12_7						0.80
Q12_8						0.56
Q12_9						0.91
Q12_12						0.40

All factor loadings are statistically significant at  $p < .001$  level

female student-athletes demonstrated higher levels of mastery orientation in sports both at T1 and at T2 than did male student-athletes. No gender differences were found in the levels of performance orientation in sports.

The results demonstrated that coach affection was associated with student-athletes' mastery orientation in sports at T2, when mastery orientation at T1 was controlled for. The follow-up analyses demonstrated that this result was true specifically for male student-athletes: among males, the higher the level of experienced coach affection/warmth, the higher the level of mastery orientation in sports at T2. Coach psychological control was not associated with the motivational orientations.

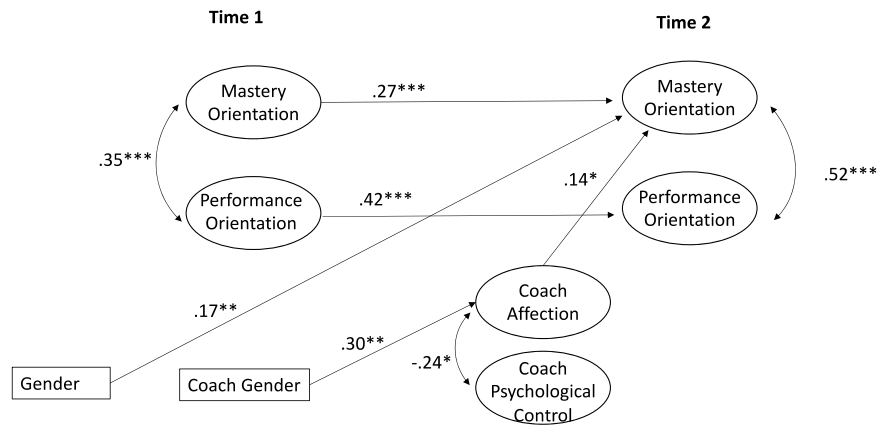
Finally, the results showed that coaches' gender was associated with their affection: student-athletes described female coaches as having shown higher levels of affection than male coaches. Neither student-athletes' gender

nor the interaction term *student-athletes' gender X coaches' gender* were statistically significantly associated with the coaching style in terms of affection and psychological control.

### Structural equation modeling for the school domain

The results of structural equation modeling (SEM) for the school domain are depicted in Fig. 2 (standardized estimates). Factor loadings of the related measurement models are shown in Table 2. The tested model fit the data well:  $\chi^2(435) = 756.92$ ; RMSEA = 0.051; SRMR = 0.070. The results (Fig. 2) revealed, first, that gender was associated with student-athletes' mastery orientation: females demonstrated higher levels of mastery orientation in school at T2 than did male student-athletes. No gender differences were found in the levels of performance orientation in school.

**Fig. 2** Motivational orientation in school and the role of coaching style in this. *Note.* \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$



**Table 2** Standardized Factor Loadings for the Model of Motivational Orientation in School and the Coaching Styles

	Mastery orientation T1	Mastery orientation T2	Performance orientation T1	Performance orientation T2	Coach affection T2	Coach psychological control T2
Q26_2	0.48					
Q26_3	0.79					
Q26_5	0.87					
Q26_6	0.89					
Q26_8	0.53					
Q26_9	0.77					
Q21_2		0.55				
Q21_3		0.84				
Q21_5		0.90				
Q21_6		0.92				
Q21_8		0.60				
Q21_9		0.83				
Q26_1			0.80			
Q26_4			0.89			
Q26_7			0.83			
Q26_10			0.88			
Q21_1				0.84		
Q21_4				0.92		
Q21_7				0.87		
Q21_10				0.90		
Q12_3					0.71	
Q12_6					0.58	
Q12_11					0.92	
Q12_14					0.55	
Q12_7						0.80
Q12_8						0.61
Q12_9						0.87
Q12_12						0.47

All factor loadings are statistically significant at  $p < .001$  level

The results also demonstrated that coach affection was associated with student-athletes' mastery orientation in school at T2, when mastery orientation at T1 was controlled

for (Fig. 2): the higher the level of coach affection, the higher the level of mastery orientation in school. Coach psychological control was not associated with the motivational

orientations. The follow-up analyses did not reveal any gender differences in these results.

## Discussion

In this study, we examined (1) gender differences in adolescent athletes' motivational orientations in sport and school across the three years in upper secondary school; (2) the role of coaching styles regarding affection and psychological control in these motivational orientations; and (3) gender differences in these associations. Furthermore, (4) the role of athletes' gender, coaches' gender, and their interaction in coaching styles (i.e., affection and psychological control) was examined. The results show that on average, female athletes demonstrated higher levels of mastery orientation in sports and school than male student-athletes did. No gender differences were found in relation to performance orientation. Furthermore, a high level of coach affection was associated with male athletes' high levels of mastery orientation in sports, as well as both male and female athletes' high levels of mastery orientation in school. Female coaches were reported to show more affection in their coaching style than male coaches.

Our first research question focused on examining gender differences in student-athletes' motivational orientations in sports and school. Contradictory to null hypothesis and in accordance with alternative hypothesis (Research question 1, H1) and with previous literature, the findings demonstrated that female athletes demonstrated higher levels of mastery orientation than males in both the domains of sports (Hanrahan & Cerin, 2009) and school (Arens & Watermann, 2021). However, as no gender differences were found in relation to performance orientation, the null hypothesis concerning performance orientation in sports and school retains. Our findings suggest that, due to their mastery orientation, female athletes seem to invest into their DC and academic goals and are engaged to do well in both domains (see also Viljaranta et al., 2022). This can be explained by the fact that female athletes often experience cultural and societal pressure to excel in multiple roles simultaneously and are therefore more likely to invest in DC goals and identities compared to males (Ryba et al., 2021). Indeed, earlier studies have suggested that this pressure may be linked to the beliefs of how female athletes are inferior to male athletes and how pursuing a professional athletic career is not a real career option for them (Kavoura & Ryba, 2020); Ryba et al., 2021: female athletes have been found to feel less competent than male athletes in sport (Ronkainen et al., 2020), are less likely to aim for a professional athletic career (e.g., Kavoura & Ryba, 2020), and are at higher risk of dropping out of sports compared to males (Skrubbeltrang, 2019). Due to the

structural inequalities that limit female athletes' access to develop professional athletic careers, they also have a higher need to engage in DC goals compared to males. For example, in 2017, only 1.6% of Finland's professional athletes were women (Lämsä, 2018).

Our second research question examined the association between coaching styles and athletes' motivational orientation in sport and in school. In this study, we examined coaching styles from a novel theoretical perspective used earlier in parenting literature, particularly focusing on two dimensions of coach behavior: affection and psychological control. Based on the results, the null hypotheses suggesting no associations between coach affection and psychological control with athletes' mastery and performance orientations in sports or school at T2 were rejected. In accordance with alternative hypothesis (Research question 2, H1a) and earlier coaching literature (e.g., Amorose & Anderson-Butcher, 2015; Smith et al., 2009; 2016; Urdan & Kaplan, 2020) the results demonstrate that the higher the level of coach affection, the higher the level of male student-athletes' mastery orientation in sports at the end of the third year of high school. Interestingly, this association was only found to be true for male athletes. This finding partly contradicts previous research (e.g., de Haan & Knoppers, 2020) as well as alternative hypothesis (Research question 2, H1c), as it was expected that female student-athletes would benefit more from an autonomy-supportive coaching style in terms of their intrinsic motivation in sports. It is possible that, according to traditional views on masculinity, male athletes may have received acknowledgment from a performance-oriented approach in their previous interactions with coaches (de Haan & Knoppers, 2020; Ong, 2019) and subsequently benefit more from coaches' emotional support and warmth compared to females. It should also be noted that this gendered effect was found for coaches' affection, which is different from the concept of *autonomy support* that prior studies have used. It may be that male student-athletes spend more time in sports-related activities and therefore develop closer (i.e., more affective) relationships with their coaches compared to females. It is also noteworthy that our findings contradict with previous findings suggesting that female athletes would especially benefit from emotional support from the coaches (Amorose & Horn, 2000; de Haan & Knoppers, 2020).

The results concerning coaches' role in student-athletes' school motivation demonstrate that the affective coaching style predicted student-athletes' mastery orientation in school at the end of the third year for both female and male athletes (Urdan & Kaplan, 2020). This finding suggests that coaches' affection, referring to a warm and supportive relationship of student-athletes with their coach, supports student-athletes' mastery orientation, not only in the athletic domain, but in school as well (see also Into et al.,

2020; Nikander et al., 2022). Mastery orientation has been associated with several beneficial outcomes, such as higher intrinsic motivation and higher engagement in learning (Sorkkila et al., 2018) and may be helpful in athletes' sustainable DC construction. The results of the present study show that coaches can be significant motivational agents for young athletes in the school domain as well, and that by adopting an affective coaching style, they can support both female and male student-athletes' opportunity to pursue education alongside sports (Saarinen et al., 2020). This is an important finding as earlier studies have only focused on examining coaches' role in athletes' motivation in the athletic domain. In fact, affective coaching may provide a buffer against student-athletes' withdrawal from school and sports as it has been shown that talented adolescents with dual motivation, especially females, are likely to retire prematurely from sports at a time of increased tension between their two careers (Ryba et al., 2021).

The third research question of the present study examined the role of student-athletes' gender, coaches' gender, and their interaction in coaching styles in terms of affection and psychological control. The results reveal important and significant information. First, in accordance with alternative hypothesis (Research question 3, H1b, female coaches were reported to exhibit more affection in their coaching style in comparison to male coaches. Despite the limited earlier research examining gendered differences in the coaching context, the results show that the ways of performing femininity (such as women behaving in a more nurturing and caring way) and as identified in parenting context (Endendijk et al., 2016, 2017) appear to be similar in the coaching context. However, according to the null hypotheses (H0) no gender differences were reported in terms of coach psychological control. As a result of the affective coaching style being found to be related to higher mastery orientation among student-athletes and seeming to be used more often by the female coaches, female coaches' method of coaching may be more efficient at supporting student-athletes' DC construction (Smith et al., 2009). This suggests that despite the social perceptions of gender that typically marginalize female coaches and frame them as less capable for the coaching profession (Norman & Simpson, 2022), female coaches may actually be more efficient at providing holistic support for student-athletes.

Second, in line with null hypotheses (Research question 3, H0) and contrary to alternative hypotheses (Research question 3, H1a and H1c), neither student-athletes' gender nor the interaction term *student-athletes' gender X coaches' gender* were associated with coaching styles in terms of affection and psychological control. Parents being typically warmer and autonomy-supportive toward their daughters than sons, indicated in the parenting literature (Endendijk et al., 2017), was therefore not replicated in the coaching

context. This may be due to parents, relative to coaches, having higher gender-role expectations of their children and thus being more likely to show parenting that reinforces gender-role consistent behaviors (Endendijk et al., 2016). Furthermore, due to the recent, increased gender-equality work carried out in the Finnish educational settings, coaches may also be more conscious of gender-neutral practices compared to parents. Coaching has typically been viewed as a masculine domain in which the majority of coaches working with top-level athletes are men (Norman, 2016; Norman & Simpson, 2022). Therefore, women who enter the coaching profession need to negotiate the gender norms and may, therefore, share more feminist approaches regarding stereotypical gender roles that are projected in the athletic field and aim to exhibit coaching that does *not* reinforce such stereotypes. Undoubtedly, further studies are needed to address the question of how student-athletes' gender and coaches' gender shape coaching styles, and how these might influence the ways athletes are motivated toward DC.

In conclusion, the present study was the first to examine gender differences in adolescent student-athletes' sport and school motivation and the role of gender and coaching styles in these orientations. Our findings suggest that the young female athletes' pressure to excel in multiple roles are also reflected in their motivational orientations. Furthermore, our findings demonstrate how via an affective coaching style coaches can contribute to the development of athletes' mastery-oriented motivation in the domains of sports and school. While female coaches have often been marginalized in coaching professions due to their believed incapability to operate in that field, this work highlights that female coaches may be more efficient at providing holistic support for athletes. Our findings highlight that many taken-for-granted gender stereotypes in sport are not supported by empirical evidence and that it is important to actively operate toward changing them.

## Implications

Our study has several practical implications. First, it is important to educate coaches on the benefits of affective coaching in terms of student-athletes' mastery orientation in the domains of sports and school. Coaches could be taught in practice what affective coaching entails, such as what kind of language and interaction support positive relations with student-athletes and how athletic environments can be structured in a way that promotes the development of mastery orientation (Appleton & Duda, 2016; Smith et al., 2009, 2016). This suggestion fits well with the European Commission's (2012) guidelines concerning DC athletes, which states that coaches need to develop competencies to view student-athletes



from a holistic perspective. Moreover, we hope that the results of the present study could be used to empower women coaches and promote their careers in elite sports, as well as having the goal of increasing women's representation in coaching positions. Both suggestions are important contributions to the European Commission's (2014) proposal for strategic actions to increase gender equality in sports: there is a need for women to be increasingly recruited into elite-level coaching positions (European Commission, 2014).

### Limitations

The novel findings of the present study need to be interpreted within an understanding of its limitations. First, only one measurement point was used to assess coaching behaviors, that is, the end of the third year in upper secondary school. Therefore, it was not possible to examine the possible changes in coaching styles over time, and the developmental dynamics of student-athletes' motivational orientations in relation to the coaching styles. It is possible, for example, that coaches may change the way they coach their student-athletes as a reflection of their perceptions of the student-athletes' motivation or achievement (Smith et al., 2016). Second, in the present study, we examined student-athletes' perceptions of coaching styles, and thus have only a partial view of the phenomenon. For example, it has been found that athletes' and coaches' interpretations of what constitutes supportive coaching behaviors may differ from each other. Therefore, future studies should investigate coaching styles further by including reports from coaches as well. Finally, the possibility of an impact by the sociocultural context in which the present study was conducted may limit the generalizability of the study findings. The current study was conducted in Finland and school systems, cultural values, and coaching education are likely to be different in different cultures. Therefore, we encourage conducting further studies in different sociocultural contexts to add to our understanding of the development of gendered differences in student-athletes' motivational orientations and the role of coaching styles in this process. Especially qualitative studies that explore how gendered discourses shape athletes' motivation to pursue a DC are needed to gain a more nuanced understanding of the phenomenon (Ryba et al., 2021).

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**Data availability** The data that support the findings of this study are available from the last author, Tatiana V. Ryba, upon reasonable request.

### Declarations

**Conflicts of interest** The authors have no conflicts of interest to disclose.

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## IV

# **STUDENT-ATHLETES' CAUSAL ATTRIBUTIONS FOR SPORT AND SCHOOL ACHIEVEMENT IN RELATION TO SPORT DROPOUT AND GRADE POINT AVERAGE**

by

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## **Student-Athletes' Causal Attributions for Sport and School Achievement in Relation to Sport Dropout and GPA**

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### **Abstract**

The present study longitudinally examined stability and change in the attributional profiles of Finnish student-athletes ( $n = 391$ ) in upper secondary sport school. Moreover, it examined the extent to which these profiles, and changes in them, were associated with athletes' level of sport competition and school achievements and dropouts at the end of upper secondary sport school. Using latent profile analysis, five different and highly stable attributional profiles were identified for student-athletes: (1) depressive (6.9 %), (2) athletic self-serving (23.0 %), (3) average (16.4 %), (4) learned helplessness (30.9 %), and (5) responsible (22.8 %). The results further showed that over the three-year study period the responsible attributional style where individuals take responsibility for successes and failures predicted student-athletes' subsequent high grade point average and low sport dropout rates even after controlling for the impacts of their earlier grade point average, gender, and type of sport.

*Keywords:* attributional style, senior high school, upper secondary school, ability, effort, responsible

## **Student-Athletes' Causal Attributions for Sport and School Achievement in Relation to Sport Dropout and GPA**

Adolescent athletes face the challenge of performing successfully in sports while at the same time achieving academic success. However, previous sport and education research has shown that succeeding in both is not guaranteed due to, for example, conflicting goals, time constraints, and overlapping schedules (Stambulova & Wylleman, 2019). These challenges mean that athletes are often at risk of motivational problems in both the sport and school domains, leading to the early termination of athletic and/or academic careers (Aunola et al., 2018). Therefore, it is important to understand why some student-athletes experience such problems, while others manage to maintain high levels of motivation, and to assist student-athletes in maintaining their motivation in both domains. *Causal attributions* are the causes individuals assign to justify their performance outcomes. Attributions are typically considered *adaptive* and crucial for maintaining motivation in any field (Weiner, 1985; 2018) when successes are attributed to internal and stable factors (e.g., ability) and the causes of failures to unstable factors (e.g., luck). Yet, little is known about the attributional profiles of student-athletes, how stable these profiles are across the first year of upper secondary sport school, and how these profiles relate to their subsequent level of sport competition, school achievements, and dropouts. The current study sets out to explore these issues with student-athletes aged 15-19, admitted to prestigious upper secondary sport high schools in Finland.

### **Causal Attributions**

Attribution theory is a motivational theory that has received considerable attention in recent decades. It holds that causal attributions for success or failure guide future efforts (Weiner, 1985, 2018). Performance outcomes may be related to many factors (e.g., ability, effort, luck, or task difficulty), but typically, individuals attribute succeeding or failing in competitive situations mostly to ability and effort (Weiner, 1985, 2018). According to attribution theory, factors that may account for performance outcomes can be classified across three dimensions: locus of causality (internal/external), controllability (controllable/uncontrollable), and stability (stable/unstable). Ability is typically considered as internal, stable, and uncontrollable; effort is considered as internal, unstable, and controllable; task difficulty is considered as external, stable, and uncontrollable; and luck is considered to be external, unstable, and uncontrollable (Weiner, 1985, 2018). Since effort and ability are the typical attributions individuals assign to their achievements, the present study focuses particularly on these attributions.

### **Attributional Styles**

The term *attributional style* refers to the ways individuals habitually explain the causes of positive and negative performance outcomes (Abramson et al., 1978). In general, an attributional style is referred to as *adaptive* when the causes of successes are attributed to internal and stable factors, such as ability, and the causes of failures are attributed to external and unstable causes, such as luck (Allen et al., 2020; Weiner, 2018). These types of attributions are also coined *self-serving* (Mezulis et al., 2004) and may positively impact athletes' perceptions of own ability, leading to higher hopes for

and expectations of future success and increasing efforts to succeed in the future. *Learned helplessness* is an example of an assumably *maladaptive* attributional style, meaning that individuals fail to see connections between their own efforts and achievements (Abramson et al., 1978; Yee et al., 2003). Another well-recognized maladaptive attributional style is the *depressive* attributional style, which involves a chronic style of attributing failures to internal, stable, and uncontrollable factors like lack of ability without attributing successful outcomes to one's own ability and/or efforts (Seligman et al., 1979).

Earlier athletics studies have shown that athletes often have a self-serving attributional bias, attributing personal success in sport competitions to stable (ability) and controllable (effort) factors and personal failure to unstable and uncontrollable (e.g., bad luck) factors (for a review, see Allen et al., 2020; Mezulis et al., 2004). In the academic context, studies have shown that students often ascribe both their achievements and failures to internal factors, such as ability and effort (Graham, 2004; Weiner, 1985). Interestingly, a recent variable-oriented study conducted among student-athletes in upper secondary sport school found that the student-athletes attributed their positive outcomes in sports more often to own efforts than positive outcomes in school (Van Yperen et al., 2021). This may be because student-athletes tend to prioritize sports and thus have a stronger desire for a positive athletic self-image than an academic one (Mezulis et al., 2004). Earlier sport studies also indicate that the self-serving bias in athletic contexts is not necessarily adaptive (Rees et al., 2005). In fact, Rees et al. (2005) argued that attributing failures to external factors can be maladaptive, since external factors are not under an individual's control. For instance, if an athlete is not in a position to change an ineffective coach, ascribing failure to this coach will not increase faith in a more successful future.

Earlier attributional studies in sport psychology have often been cross-sectional and have focused on examining state attributions, that is, attributions that individuals make about a specific situation and/or at a specific point in time (Coffee & Rees, 2011; Rascle et al., 2015). However, the novel approach taken in this study is to explore attributional styles, that is, the general tendencies of individuals to account for failure and success (cf. Abramson et al., 1978; Enlund et al., 2015) to better understand how attributions can predict achievement outcomes over a longer period of time. While attributional styles are assumed to be relatively stable over time, the few earlier studies that have longitudinally examined the stability of causal attributions have focused only on the academic domain and were carried out among primary school children and lower secondary adolescents (Clem et al., 2018) or their parents (Enlund et al., 2015). Therefore, the development and the consistency of attributional profiles during the later adolescence years is not well understood. Understanding to what extent attributions are state-like or trait-like characteristics and getting insight into the developmental trajectories of attributional styles is important because it can indicate whether and when interventions are needed to preserve adolescents' achievement motivation both in sport and school (Clem et al., 2018; Gordon, 2008; Weiner, 2018). Maintaining high levels of achievement motivation in both domains is crucial in terms of successful participation and attaining desired outcomes, such as progression of sport and completion of upper secondary school.

### **The Role of Gender and Type of Sport**

Earlier studies provide conflicting evidence for the association between attributional styles and gender. For example, Seligman et al. (1990) found that female swimmers more often attributed failure in sport competition to lack of ability, whereas for males it was more typical to attribute failure in competition to lack of effort. More recent studies either did not find gender differences in attributions for athletic performance (Hanrahan & Cerin, 2009) or found that female athletes emphasize effort attributions more compared to males (Butler & Hasenfratz, 2017). In academic context, in turn, it has been found that it is more typical for girls than for boys to attribute failure to lack of ability, most often in activities that are stereotypically male dominant, such as math and science (for a meta-analysis, see Meece et al., 2006). A better understanding of whether girls and boys develop different attributional styles can help to design more specified attributional interventions to alter maladaptive attributional styles for each gender. Therefore, it is important to further investigate gender differences in attributional styles, and especially the extent to which such differences occur across the domains of sport and school.

Additionally, the type of sport influences athletes' causal attributions. More specifically, Hanrahan and Cerin (2009) found that individual sport athletes make more internal, stable, and global, and less externally controllable attributions for sports successes, and more internal attributions for negative sports events compared to team sport athletes. It seems logical for individual sport athletes to make more internal attributions and perceive themselves as having a greater control and responsibility for their performance compared to team athletes as they do not have teammates to whom credit or blame can be attributed (Hanrahan & Biddle, 2002). Because team sport athletes may be at higher risk of developing a maladaptive attributional style than individual sport athletes, by better understanding the role of type of sport in causal attributions may provide means to effectively support team sport athletes' motivation and successful performance outcomes. As only few studies thus far have investigated the role of type of sports in causal attributions, and none of these have investigated whether athletes' attributions extend to the academic domain, the role of type of sport in causal attributions, and their implications for schooling, warrants further research.

### **Outcomes of Attributional Styles**

Liu et al. (2009) found that high school students' attributions of academic success to effort predicted an increase in their school achievements across five school years, whereas attributions of success to ability did not. In contrast, Chen and Wu (2021) found that attributing academic success to ability was positively associated with academic achievement. Whereas attributions to academic success thus yield conflicting results, with regard to academic failures research has consistently shown that college students who attribute academic failures to controllable factors (e.g., effort or strategy) perform better and are likelier to persist in their programs than those who attribute failures to uncontrollable factors (Hamm et al., 2020; Parker et al., 2016).

In athletic contexts, studies examining the relationship between attributional styles and sport achievements have typically been cross-sectional and have supported the self-serving attributional style: athletes who perform well are likelier than low-performing athletes to attribute success to internal and stable factors (Gordon, 2008; Seligman et al., 1990). More recent experimental studies focusing on attributional



retraining have shown that encouraging athletes to attribute failures to controllable and unstable factors positively influence their sport performance (Coffee & Rees, 2011; Rascle et al., 2015). Similarly, Parker et al.'s (2016) study focusing on first-year university students from Canada found that encouraging athletes to make controllable and unstable attributions for negative experiences in academic contexts significantly improved their academic performance and decreased their likelihood of course withdrawal over two semesters. Overall, although earlier research suggests that attributional styles can predict athletes' achievement levels and dropout rates in both sport and school, most of these findings are from short-term experimental studies focusing on attributional retraining in tightly controlled settings. Therefore, there is a need to examine student-athletes' attributional styles over longer periods of time and how these are related to real life outcomes, such as their sport competition level, school achievement and sport dropouts at the end of upper secondary school.

### **Aims of the Study**

The present study had multiple aims. First, to identify student-athletes' attributional profiles at the beginning and end of the first year of upper secondary school, a person-centered approach was used (see Mäkikangas et al., 2018). This approach not only identifies different profiles, it also provides proportions of the sample belonging to identified subgroups at different measurement points. The second aim was to establish whether gender and type of sports were related to attributional profiles. The third aim was to assess how stable the attributional profiles were across the first year of upper secondary school. To establish long-term implications of attributional profiles, the final aim was to establish how attributional profiles were related to student-athletes' level of sport competition, school achievements and sport dropouts at the end of the third year of upper secondary school. Because previous studies suggest that talented elite athletes are likely to be highly motivated to perform well in both sports and education (Aunola et al., 2018), we expected (Hypothesis 1 [H1]) a large group of student-athletes to attribute success to ability and effort across domains. However, we also expected (Hypothesis 2 [H2]) that in the sport domain student-athletes' attributions to effort would be stronger compared to school domain, but only for successful outcomes (Mezulis et al., 2004; Van Yperen et al., 2021). In line with earlier studies on the relation between gender and type of sport with athletes' attributional styles, we expected (Hypothesis 3 [H3]) girls to make more attributions to effort than boys (Arens & Watermann, 2021) and individual sport athletes to make more attributions to ability and effort for successes and failures compared to team sport athletes (Hanrahan & Cerin, 2009). As past studies have shown that students' attributions on school domain are relatively stable across primary and lower secondary school years (e.g., Aunola et al., 2018; Clem et al., 2018; Enlund et al., 2015), we hypothesized (Hypothesis 4 [H4]) that student-athletes' attributional profiles would also be relatively stable in upper secondary school years. Because no previous studies have longitudinally investigated the long-term outcomes of attributional styles in sports, it was hard to formulate any hypotheses regarding such outcomes. However, some previous studies indicate that students with adaptive attributional styles (i.e., those who attributed success to internal and stable factors, and the causes of failures to unstable factors) would have higher GPAs at the end of the third year of upper secondary school (Hypothesis 5 [H5]) (Hamm et al., 2020; Liu et al., 2009). Because gender and type of sport might be assumed to be related to the student-athletes' attributional profiles, school achievement

and sport and school dropouts (Ryba et al., 2021; Hanrahan & Cerin, 2009) we accounted for the possible impact of these variables when predicting student-athletes' achievements and dropouts in relation to their attributional profiles.

## Methods

### Participants and Procedure

The present study is part of the ongoing Finnish Longitudinal Dual Career Study (Ryba et al., 2016) following talented adolescent student-athletes from the beginning to the end of upper secondary school. Upper secondary education in Finland is equivalent to senior high school in the US as student-athletes are typically 15-16 years old when they enroll to these schools and 18-20 when they graduate. Upper secondary school lasts for 3-4 years and consists of grades 1-3 which are equivalent to the grades 10-12 in the US schooling system. Currently, 15 upper secondary schools in Finland are designated as sport schools according to the Ministry of Education and Culture. The Human Sciences Ethics Committee of the relevant university, Finland, approved this study in June 2015. The study began in fall 2015, and the sample consisted of 391 (51 % female, 49 % male) student-athletes from six different upper secondary sport schools across Finland. At the time the data was collected, there were a total of 13 upper secondary sports schools in Finland (i.e., schools providing structural support for talented athletes to combine upper secondary school education with an athletic career). The six sport schools were selected from across Finland, making up about 50% of all sport schools, indicating representative subset. Moreover, the sample size of the current study ( $n > 300$ ) was - according to studies on statistical power - large enough to apply structural equation modelling and latent profile analyses (Boomsma & Hoogland, 2001; Nylund-Gibson & Choi, 2018). Prior to data collection, all participants were informed about their rights and provided written consent for their voluntary participation in the study. In Finland, informed consent from the parents/guardians of young people over 15 years old is not required. The data for the present study were collected during the first and third years of upper secondary school: at the beginning of Grade 1 (September, Time 1;  $n = 391$ ), at the end of Grade 1 (March, Time 2;  $n = 370$ ), and at the end of Grade 3 (March, Time 3;  $n = 390$ ). At each measurement point (T1, T2, and T3), participants completed a self-report questionnaire. Ethical guidelines for human subjects were followed throughout the data collection process. Of the 391 participating student-athletes, 26 were excluded from the analyses due to missing values for one or more variables. Of the remaining 365 participants, 185 (50.7 %) were female and 180 (49.3 %) were male. At the beginning of upper secondary school, 50 % of the student-athletes played individual sports and 50 % played team sports at various levels (i.e., regional, national, and/or international).

### Measurements

#### *Causal Attributions*

Students' causal attributions were assessed at T1 and T2 separately for athletic and academic performance. To measure athletic attributions, we used the scale of Aunola et al. (2015). First, the section measuring attributions for athletic performance included questions concerning both failures and successes. A distinction was made between the practice and competition contexts, so attributions were measured separately

for competition and practice performance. Second, the questionnaire assessing attributions for academic performance covered both mathematical and language skills. The questionnaire was a modified version of Rytönen et al.'s (2007) scale. The questions were specifically related to language and mathematics as school subjects rather than overall school performance. Attributions to successes and failures were assessed separately for these two academic domains. The students were asked to answer questions across domains (athletic: "If I fail/succeed in practice/competition, it is mainly because . . ."; academic: "If I fail/succeed in language/mathematics, it is mainly because . . .") by rating four items on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The alternatives covered ability ("I am/am not skillful"), effort ("I have/have not practiced a lot"), task difficulty ("It was too easy/difficult"), and teaching ("The level of teaching/coaching is good/poor"). For failure in the sport domain, an additional fifth option of injury ("I am sick/injured") was included.

To understand the students' general attributional styles for athletic and academic performance, four mean score variables (success ability, success effort, failure ability, and failure effort) were calculated separately for two time points, and for athletic and academic domains, by combining the scores for practice and competition situations in an athletic context and scores for language and mathematics in an academic context. In the athletic domain, the Cronbach's alphas for success-ability, success-effort, failure-ability, and failure-effort were .81, .84, and .80, and .83 at T1, and .87, .82, .85, and .89 at T2. In the academic domain, the alphas for success-ability, success-effort, failure-ability, and failure-effort were .56, .75, .60, .83 at T1, and .59, .73, .60, and .80 at T2, respectively.

### ***Type of Sport***

The students were asked to report their types of sports on the questionnaire at T1. In the analyses, the types of sports were divided into individual sports (50 %) and team sports (50 %).

### ***Level of Sport Competition***

We assessed participants' level of sport competition by asking them whether they had participated in different kinds of competitions (ranging from regional to international). Based on the answers, we created a new variable with five categories: 0 = no competition experience, 1 = competing on a regional level, 2 = competing on a national level (Finnish national championships), 3 = competing on a European level (e.g., European tournaments/championships), and 4 = competing on a worldwide level (e.g., world championships).

### ***Levels of School Achievements***

We assessed participants' school achievement levels using their Grade Point Average (GPA)s, which were measured by asking them to report their latest GPAs at T1 and T3.

### ***Dropouts***

Sport dropouts were measured at T3 by asking the participants: “Are you still participating in competitive sports?”, to which 75.5% answered “yes” (value 1) or “no” (value 0). Similarly, school dropouts were measured at T3 by asking the participants: “Are you continuing your upper secondary education?”, to which they answered “yes” (1) or “no” (0). However, because only five of the participants dropped out of school (two of the athletes quit school due to a lack of interest; one wanted to pursue a professional athletic career; one was spending a year as an exchange student abroad, and one changed to a vocational education), this variable did not provide useful information for this study.

### **Data Analysis**

The statistical analyses were carried out as follows: First, we examined the causal attribution profiles of student-athletes'. A latent profile analysis (LPA) was conducted using ability and effort attributions for success and failure in both sports and school as the criterion variables. Since the data were gathered at two different time points, I-states-as-objects analysis (ISOA; Bergman & El-Khoury, 1999) was employed for the LPA (Lazarides et al., 2016). In this procedure, the latent profiles were created independently of the time points by reorganizing the data so that each student-athlete was coded at each measurement point as a separate case (I-states). These reorganized data were then used in the LPA. The criterion variables for the recoded data were standardized, and outliers ( $n = 25$ ) exceeding the absolute values of standardized scores of -3 or 3 were identified and forced into the -3–3 range. The following four criteria were used to select the number of latent profiles: (1) model fit, (2) distinguishability of the latent groups, (3) latent class sizes, and (4) theoretical justification. The following methods were used to evaluate the model fit: (a) the Bayesian information criterion (BIC), (b) the adjusted Bayesian information criterion (aBIC), (c) Akaike's information criterion (AIC), (d) a Vuong–Lo–Mendell–Rubin likelihood ratio test (VLMR), and (e) a Lo–Mendell–Rubin adjusted likelihood test (LRM).

Second, log linear models were used to examine the stability of and change in the latent attributional profiles across the two time points. At this stage, the data were reorganized successively (at the first and second measurement points, each student-athlete was once again handled as two consecutive measurements of the same participant). A Pearson's chi-squared test was used to indicate significant associations between categorical variables across two time points, and adjusted standardized residuals were used to indicate significant differences between the observed and expected counts. Third, cross-tabulation was used to examine the associations between attributional profiles and gender at Time 1 and the associations between attributional profiles and type of sport at Time 1. Fourth, the outcomes associated with different attributional profiles were examined using ANCOVA to predict the outcome variables, that is, level of sport competition and GPA at Time 3 (a separate analysis for both) with cluster membership at Time 2, after controlling for the impacts of earlier level of sport competition or school achievement at Time 2, respectively, and gender and type of sport. Finally, the relation between attributional profiles and sport dropouts at Time 3 was investigated by cross-tabulating the attributional profile membership at Time 2 with sport dropouts at Time 3. Logistic regression analyses were further used to examine how cluster membership at Time 2 predicted sport dropouts at Time 3, after controlling

for gender and type of sport. The LPA was carried out using MPlus statistical software (version 8; Muthén & Muthén, 1998, 2017). Assuming missingness at random (MAR), the parameters of the models were estimated using full-information maximum likelihood estimation with standard errors that were robust for non-normal distributions (MLR estimator; Muthén & Muthén, 1998, 2017). Log linear models, logistic regressions, cross-tabulations, and ANCOVAs were performed using IBM® SPSS® Statistics 20 software.

## Results

### Attributional Profiles

The goodness-of-fit indices for the LPAs of student-athletes' attributions for sports and school across the two time points suggested that a five-class solution was appropriate (see Table 1). The five-class solution had smaller BIC and AIC values than the other class solutions, and the entropy value was also better than for two-, three-, or four-class solutions. However, the VLMR and LMR tests indicated that a six-class solution was no better than a five-class solution; therefore, the five-class solution was selected as the final solution.

**Table 1**

*Model Fit Indices and Class Frequencies for Latent Profile Analyses (with different numbers of latent profiles for student-athletes' causal attributions in sport and school (N of I-states = 761)).*

Number of Groups	BIC	aBIC	AIC	Entropy	p-Value of VLMR	p-Value of LMR
2 (288/473)	16,838.074	16,758.688	16,722.208	0.696	$p < .05$	$p < .05$
3 (292/217/252)	16,679.970	16,572.005	16,522.392	0.801	$p < .05$	$p < .05$
4 (29/279/214/239)	16,484.261	16,347.717	16,284.972	0.851	$p < .05$	$p < .05$
<b>5 (44/166/135/238/178)</b>	<b>15,607.897</b>	<b>15,442.775</b>	<b>15,366.896</b>	<b>0.929</b>	$p < .05$	$p < .05$
6 (44/135/20/23/189/135)	15,600.197	15,406.495	15,317.484	0.930	$p > .05$	$p > .05$

*Note.* The selected solution is in bold.

The first and smallest (5 % of I-states) attributional profile (see Table 2 for raw scores and Figure 1 for standardized scores) was characterized by weak effort attributions for sport and school success and weak ability attributions for school success. This profile of attributions was labeled “Depressive.” The second profile (22 % of I-states) was characterized by strong effort and ability attributions for sport success and weak effort and ability attributions for sport failures. This profile was labeled “Athletic self-serving.” The third profile (18 % of I-states) was characterized by neither particularly strong nor weak attributions to ability and effort for success or failure across domains and was thus labeled “Average.” The fourth profile (31 % of I-states) was characterized by weak effort attributions for sport and school success and was labeled as “Learned helplessness” to describe an attributional style where individuals fail to see the connection between their own effort and achievement. Finally, the fifth profile (23 % of I-states) was characterized by strong effort attributions for sport success and strong effort attributions for sport and school failures. This profile was labeled “Responsible” to describe the individual taking personal responsibility for both successes and failures.

**Table 2**

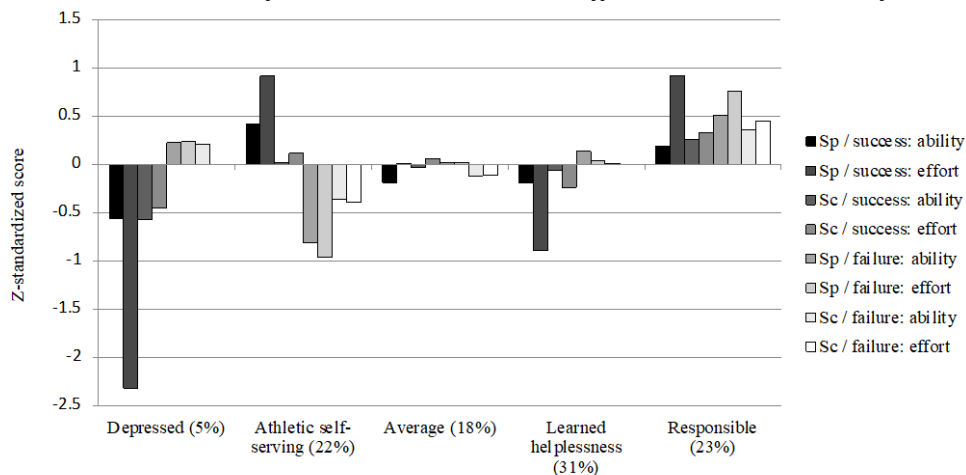
*Means of Standardized Variables, Standard Deviations (in Parentheses), and Differences between Attribution Profiles for Criterion Variables Tested with ANOVA (N of I-states = 761).*

	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5
Criterion Variable	Depressive (n = 44)	Athletic self-serving (n = 166)	Average (n = 135)	Learned helplessness (n = 238)	Responsible (n = 178)
<i>Success/ability</i>					
Sport	-0.57 (1.18) <sup>a</sup>	0.41 (0.91) <sup>b</sup>	-0.19 (0.92) <sup>a</sup>	-0.19 (0.77) <sup>a</sup>	0.19 (1.09) <sup>b</sup>
School	-0.58 (0.90) <sup>a</sup>	0.01 (1.11) <sup>bc</sup>	0.03 (0.90) <sup>bc</sup>	0.07 (0.97) <sup>c</sup>	0.25 (0.93) <sup>b</sup>
<i>Success/effort</i>					
Sport	-2.32 (0.49) <sup>a</sup>	0.92 (0.00) <sup>b</sup>	0.01 (0.00) <sup>c</sup>	-0.89 (0.00) <sup>d</sup>	0.92 (0.00) <sup>e</sup>
School	-0.46 (0.71) <sup>a</sup>	0.11 (1.11) <sup>b</sup>	0.06 (0.89) <sup>b</sup>	-0.24 (0.86) <sup>a</sup>	0.33 (0.91) <sup>b</sup>
<i>Failure/ability</i>					
Sport		-0.81 (0.75) <sup>b</sup>	0.02 (0.98) <sup>c</sup>	0.14 (0.87) <sup>ac</sup>	0.51 (0.96) <sup>d</sup>
School	0.22(0.87) <sup>acd</sup> 0.21 (0.82) <sup>ac</sup>	-0.37 (1.11) <sup>b</sup>	-0.12 (0.94) <sup>ab</sup>	0.01 (0.93) <sup>a</sup>	0.36 (0.94) <sup>c</sup>
<i>Failure/effort</i>					
Sport	0.23 (0.60) <sup>a</sup>	-0.96 (0.73) <sup>b</sup>	0.02 (1.04) <sup>a</sup>	0.04 (0.83) <sup>a</sup>	0.76 (0.72) <sup>c</sup>
School	-0.00 (0.72) <sup>ab</sup>	-0.39 (1.17) <sup>a</sup>	-0.11 (0.96) <sup>ab</sup>	0.00 (0.85) <sup>b</sup>	0.45 (0.93) <sup>c</sup>

*Note.* Group means with different superscripts showed a statistically significant difference ( $p < .05$ ). Post hoc tests were performed with Tamhane.

**Figure 1**

*Standardized Scores of Criteria Variables in Different Attribution Profiles.*



*Note 1.* N of I-states = 761.

*Note 2.* Sp = Sport; Sc = School.

An examination of the gender distribution in the five groups showed no statistically significant association between group membership and gender at Time 1 ( $\chi^2 [4] = 7.347, p = .115$ ). However, inspection of adjusted residuals revealed that girls were overrepresented (adj. res. = 2.3,  $p < .05$ ) in the “Responsible” group, whereas boys were underrepresented (adj. res. = -2.3,  $p < .05$ ). Examination of the association between the type of sport and group membership at Time 1 showed a statistically marginally significant association ( $\chi^2 [4] = 8.965, p = .062$ ). Team sport athletes were overrepresented (adj. res. = 2.6,  $p < .05$ ) in the “Learned helplessness” group, whereas individual-level athletes were underrepresented in this group (adj. res. = -2.6,  $p < .05$ ).

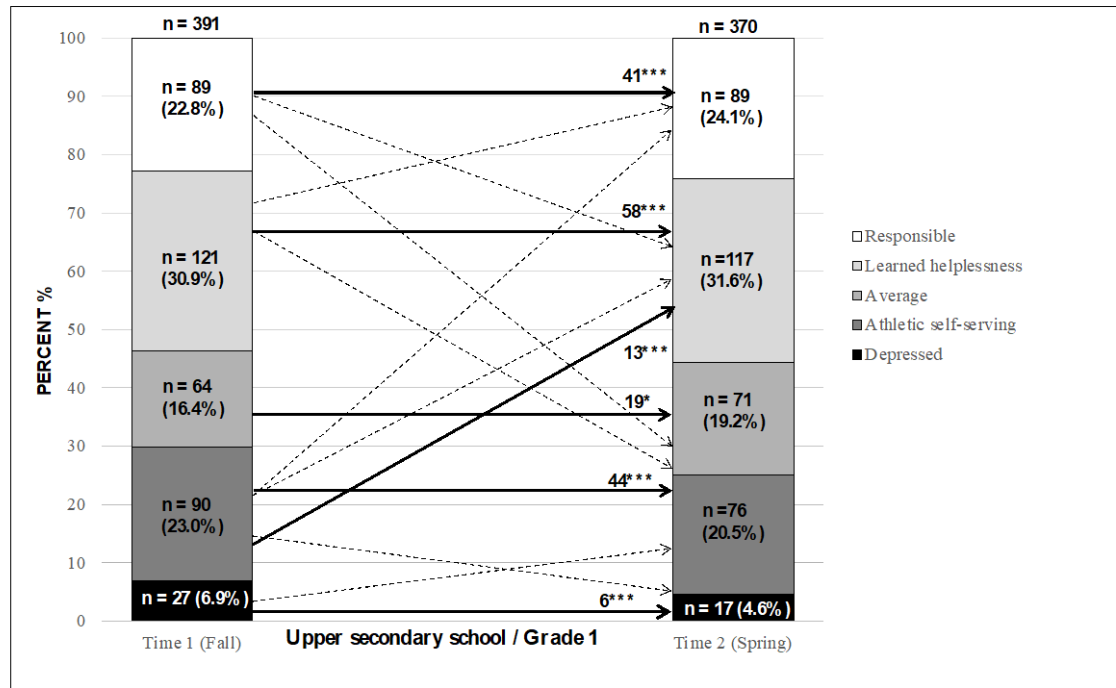
### **Stability and Change in Attributional Profiles Over Time**

The statistically significant stability of, and change in, the attributional profiles from Time 1 to Time 2, analyzed using log linear models, are shown in Figure 2 (frequencies; straight line for changes that were likelier than by chance; dotted lines for changes that were less likely than by chance;  $p < .05$ ). The results showed statistically significant associations between group membership at Time 1 and Time 2. All five attributional profiles exhibited considerable stability across the two measurement points. This meant that student-athletes with a particular attributional profile at Time 1 more likely had the same attributional profile at Time 2 rather than some other profile. The only exception was for student-athletes in the “Depressive” group, who were statistically likely to either stay in the same group or move to the “Learned helplessness” group between Time 1 and Time 2. The percentages of student-athletes in the “Depressive” but also the “Athletic self-serving” groups actually decreased across the two time points, whereas the percentages of student-athletes in the “Average,” “Learned helplessness,” and “Responsible” groups increased over time.



**Figure 2**

*Statistically Significant Stabilities and Changes in Attributional Profiles Across Two Measurement Points (Frequencies) when Tested with Log Linear Models.*



Note 1. Straight line for changes that are more likely than expected by chance; dotted lines for changes that appear less likely than expected by chance ( $p < .05$ ).

Note 2. \* $p < .05$ , \*\*\* $p < 0.001$ .

**Outcomes Associated with the Attributional Profiles**

Next, to examine how the attributional profiles were associated with athletes’ subsequent level of sport competition and GPA at Time 3, we conducted ANCOVAs to determine statistically significant group differences in level of sport competition and GPA at Time 3, after controlling for the dependent variable at Time 1 (level of sport competition and GPA, respectively). From a possible range of 4 (insufficient) to 10 (excellent), the participants’ GPAs were, on average, 8.85 ( $SD = 0.62$ ;  $Range = 7.25–10$ ) at Time 1, and 8.05 ( $SD = 0.87$ ;  $Range = 5–9.90$ ) at Time 3. The results showed no statistically significant associations between attributional profile membership at Time 2 and level of sport competition at Time 3 after controlling for level of sport competition at Time 1, gender, and type of sport ( $F[4, 229] = 0.057, p = .994$ ). However, the attributional profile group membership at Time 2 predicted athletes’ GPA at Time 3 after controlling for the GPA, gender, and type of sport at Time 1 ( $F[4, 298] = 2.949, p = .021$ ). The pairwise comparisons revealed that athletes in the “Responsible” group at Time 2 had higher GPAs at Time 3 than athletes in the “Learned helplessness” group at Time 2.

Next, to examine how the attributional profiles at Time 2 predicted athletes’ sport dropouts at Time 3, cross-tabulation between the group membership at Time 2 and sport

dropout at Time 3 was analyzed. At T3, 75.5 % of participants reported that they still participated in competitive sports, whereas 24.5 % had dropped out of sports. The results showed that there was an underrepresentation of student-athletes who had dropped out of sports in the “Responsible” group ( $n = 9$ ; adj. res. = -3.4,  $p < .01$ ), whereas there was an overrepresentation of student-athletes who continued sports ( $n = 72$ ; adj. res. = 3.4,  $p < .01$ ) in this group. In contrast, there was an overrepresentation of student-athletes who had dropped out of sports in both the “Average” ( $n = 22$ ; adj. res. = 2.4,  $p < .05$ ) and the “Depressive” group ( $n = 6$ ;  $\chi^2(4) = 16.579$ ,  $p < .01$ ).

Finally, logistic regression analysis was used to examine how group membership at Time 2 predicted sport dropouts at Time 3 after controlling for gender and type of sport. The results showed that gender statistically significantly predicted dropouts with dropout from sport being more typical for females than for males ( $B = -.915$ ; Wald (df) = 10.028;  $p = .002$ ; Exp (B) = 0.400), whereas type of sport did not ( $B = .333$ ; Wald (df) = 1.497;  $p = .221$ ; Exp (B) = 1.395). In line with the cross-tabulation analyses, attributional profile significantly predicted sport dropouts, even after controlling for gender and type of sport (Wald = 14.856, df = 4,  $p = .005$ ). More specifically, athletes belonging to the “Responsible” group were less likely to drop out of sports than athletes in any other group.

## Discussion

The present study applied a person-oriented approach to identify diverse subgroups of student-athletes with different attributional profiles for success and failure situations in the sport and school domains. Five different and highly stable attributional profiles were identified in the sample: “Learned helplessness” (30.9 %), “Athletic self-serving” (23.0 %), “Responsible” (22.8 %), “Average” (16.4 %), and “Depressive” (6.9 %). The most common profile was “Learned helplessness,” mostly characterized by weak effort attributions for sport success and relatively weak effort attributions for school success. At the beginning of upper secondary school, this profile was typical for about 30 % of the student-athletes. Since the admission process for upper secondary sport schools in Finland is competitive, and athletic and academic demands increase when athletes enter secondary education, requiring more effort for students to succeed, it is somewhat concerning that a third of the student-athletes did not believe that their own efforts contributed to their school and sport achievement. A possible explanation is that when entering upper secondary sport school, many talented athletes may start to realize that effort alone is not enough to succeed, as they enter an environment in which all student-athletes devote a lot of time and effort to sports.

Moreover, at the beginning of upper secondary school, almost 25 % of the student-athletes demonstrated an “Athletic Self-serving” attributional style, characterized by strong effort and ability attributions for sport success but weak effort and ability attributions for sport failures. This finding aligns well with previous literature showing that athletes, most typically those who prioritize sports over school - often have a domain-specific self-serving bias (Allen et al., 2020; Mezulis et al., 2004). This implies that they ascribe their positive outcomes in sports more often and/or more strongly to their own ability and effort than in the school domain and attribute failures in sports more often to external factors (Van Yperen et al., 2021). The results showed that nearly 25 % of the student-athletes had a “Responsible” profile characterized by attributing successes and failures in sports and failures in school strongly to their ability and effort. The existence of a high personal responsibility group in which students take

credit for their successes and hold themselves responsible for failures has also been reported previously (Houston, 2016). Finally, almost 7 % of the student-athletes demonstrated a “Depressive” attributional style characterized by low effort attributions for sport success and relatively low effort attributions for school success, combined with low-ability attributions for school success at the beginning of upper secondary school.

Generally, while the attributions student-athletes made were consistent across the sport and school domain, they made stronger ability and effort attributions for sport success compared to school success especially in the “Athletic self-serving” group. This can be explained by the highly competitive selection procedure adopted by sport schools which require athletes to perform at a very high level, leading to more conscious evaluations of one’s own sport performances.

We also examined the role of gender and type of sport in student-athletes’ attributional profiles. The results indicated a nonsignificant trend in the predicted direction for both variables; it was more typical for girls than boys to demonstrate a “Responsible” attributional style (Arens & Watermann, 2021). The “Learned helplessness” attributional style proved to be more typical for team sport athletes than for individual sport athletes (Hanrahan & Cerin, 2009). This is in line with the notion that individual athletes are more likely to hold themselves responsible for performance outcomes (Hanrahan & Cerin, 2009). Since the results were marginal, future studies should clarify the roles of gender and type of sport in the ways athletes explain their successes and failures. Adding knowledge on these issues would be important when aiming to efficiently support the development of an adaptive attributional profile, especially among boys and team sport athletes.

The results also showed that student-athletes’ attributional profiles were stable across the first year of upper secondary school: the profile typical for a student-athlete at the beginning of the first year was likely to be the same at its end (see also, Aunola et al., 2018; Clem et al., 2018; Enlund et al., 2015). This finding, as well as the fact that attributions were found to be relatively consistent across domains, both support the idea that for many adolescents the attributional style may be a trait-like characteristic that has stabilized before the first grade of upper secondary school and does not alter under intensified academic and athletic circumstances. This means that it is especially important for different actors (i.e., coaches, teachers) who work with young athletes to focus on preventing the development of a maladaptive attributional style. However, because attributional profiles were not set in stone for all student-athletes, and a substantial amount of them developed a different attributional profile during the first year of upper secondary school it is important that an adoption of an adaptive attributional style is also promoted in upper secondary school.

The final research question asked how causal attribution profiles relate to student-athletes’ level of sport competition and school achievement and sport dropout at the end of the third year of upper secondary sport school when gender and type of sport were controlled for. The results showed that athletes’ attributional styles were found to predict sport dropouts: student-athletes with a “Responsible” attributional style were less likely to drop out of sports than athletes in other groups. This may be because athletes with this profile are typically achievement oriented and willing to learn despite failures, leading to clear improvements, which, in turn, increase enjoyment of an activity and may prevent dropout (Duda & White, 1992). Second, student-athletes’ attributional profiles were not associated with upper secondary third year level of sport competition after controlling for the earlier levels of sport competition, gender, and type of sport. While this result is somewhat surprising, bearing in mind the positive results of

earlier attributional retraining studies (Coffee & Rees, 2011; Rascole et al., 2015), it may be explained by unequally distributed dropout rates across profiles. That is, it is possible that the dropout cases were athletes who did not achieve much, increasing the overall achievement levels of all but the responsible group, which had almost no dropout cases.

Finally, the results showed that student-athletes' attributional profiles predicted their school achievement: athletes with a "Responsible" attributional style during the first year had higher GPAs than the other groups at the end of the third year of upper secondary school (Houston, 2016). This was true even after controlling for earlier school achievement, gender, and type of sport. This suggests that the attributions individuals make to account for their successes and failures play important roles in guiding future motivation, effort, and achievements.

Overall, while the self-serving attributional style is generally considered as the most adaptive one (attributing successes to internal and stable factors, such as ability, and failures to external and unstable factors, such as luck) (e.g., Allen et al., 2020; Mezulis et al., 2004), the current study shows that from a longitudinal perspective it may be the most beneficial to attribute both successes and failures to one's own effort, that is, to adopt a responsible attributional style. While previous research has often suggested that attributing success both to ability and effort can be considered adaptive, according to the present study individuals may especially benefit from attributing successful events to effort (Weiner, 2018). This may be especially important in a failure situation because it has been found that too much focus on ability may be counterproductive and lead to anxiety over future performance or depressive symptoms (Gordon, 2008). In fact, when adopting a responsible attributional style individuals take credit for successful performance outcomes and are motivated to maintain behavior but also can learn and effectively change behavior after a negative experience and use that as a starting point for improvement (Hamm et al., 2020). Practically, the results of the present study suggest that it is important to develop interventions especially among younger athletes to internalize responsible attributional style. This means that the role of effort should be promoted above ability when accounting for successful and less successful performance outcomes in different sport and educational settings and interactions among teachers and coaches (Hamm et al., 2020). Because attributional styles tend to stabilize prior to upper secondary school, interventions should target youngsters and/or their coaches and/or teachers at an earlier stage to efficiently enable the change of maladaptive profiles (Clem et al., 2018).

### **Limitations**

The present study has a number of limitations. First, only three years of upper secondary school were covered. Future studies should therefore examine stability and change in attributions, as well as their relation with level of sport competition, school achievement and sport/school dropout over a longer period of time, extending study to tertiary education (vocational high school, university) and/or working life. Second, the Cronbach alpha reliabilities for the success-ability (T1: 0.56; T2: 0.59) and failure-ability (T1: 0.60; T2: 0.60) scores in academic domain were low. This may be related to the fact that in the academic domain attributions were calculated across two school subjects (mathematics and language), whereas in the sport domain questions concerned sports only. Earlier studies showed that students sometimes make different attributions for mathematics and language, related to differences in self-concept of ability (Clem et al., 2018; Meece et al., 2006). We leave it to future studies to assess attributions related

to mathematics and literature separately. Third, the sample consisted of academically high-performing student-athletes from upper secondary sport schools, which is a rather elite subpopulation not representative for this age category. Yet, most attributional profiles are quite common among other populations as well, so it can be assumed that the findings are at least to some extent generalizable. Finally, the present study was conducted in a particular sociocultural context — Finland. Because the results may not fully apply to other educational and cultural settings, future cross-cultural studies are needed to establish to what extent there are similarities and differences in causal attributions, sport and school achievement, and sport dropout across countries.

## Conclusions

The present study provides an important theoretical and empirical contribution to the existing attributional literature by longitudinally examining student-athletes' attributional profiles and the outcomes associated with these profiles during upper secondary school in two domains, sport and school. We identified five different and highly stable attributional profiles among the sample at the first year of upper secondary school and the profiles were predictive of student-athletes' school achievement and sports dropout at the end of the third year of upper secondary school. While earlier studies have often considered the self-serving bias as the most adaptive attributional style (e.g., Mezulis et al., 2004), the current study supports the view that from a longitudinal perspective it is most adaptive to adopt a responsible attributional style, that is, to explain both successes and failures in terms of one's own effort. This can help to maintain behavior after a successful outcome but also implies that taking personal responsibility after failures helps to learn and effectively change behavior (Houston, 2016). In order to support talented and elite athletes' successful combination of sports and school and to prevent their sports dropout at the level of elite sport or higher education, it is important to develop interventions targeted to help student-athletes to internalize responsible attributional styles in response to both successes and failures in both sport and education at an early age.

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